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**Forest Service** 

Tongass National Forest R10-MB-187c

September 1992



## Alaska Pulp Corporation Long-Term Timber Sale Contract

Southeast Chichagof Project Area Final Environmental Impact Statement

Volume III: Appendices, Part 3





# Appendix L

Silvicultural Prescriptions



UNIT # 1520 of the SE Chichagof Timber Sale

STAND # 9, 22 VCU 230 MANAGEMENT AREA C34 ACRES 16 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 30 Photo #'s 1084-80 Scale: 1:12000 1/4 Quad ID: SITD5SE SITE CHARACTERISTICS: Elevation: 150 to 600 ft. Aspect: NW to NE Slope: 40 to 60% Landform: Broken Mountain Slopes

Site Index (Farr): 64 Plant Association: Western hemlock-yellow cedar/blueberry/skunk cabbage. Soil: SMU = 3663C Parent Material: Ablation till over compact till or colluvium Soil Depth cm: 150 Soil Texture: Silt loam to mucky silt loam Potential of Mass Failure: Moderate STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 08/14/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents: Some weather damage evident. Light mistletoe. Minor stem Species Composition (trees 5+" DBH): 39 %WH 9 %MH 45 %AC 7 %SS Stand Structure: Uneven aged hemlock/cedar. Saps/poles are confined mainly to canopy gaps. Heavier brush higher on slopes is precluding natural regeneration. Cedar is showing signs of decline, but mortality and defect is generally low. Ave. Height: 78 ft. Basal Area: 291 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH): 345 Ground Cover: 40% to 70% blueberry. 5%-15% rusty menziesia. Total Net Sawlog Vol/Acre: 25.9 MBF Total Unit Vol: 507 Volume by Species: H 17.5 MBF AC 5.6 MBF SS 2.8 MBF SUMMARY OF OTHER RESOURCES AND VALUES: No concerns in Soils, Fisheries, or Hydrology.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

Alternatives Considered: Require Requirement in harvests considered include clearcut with reserve trees or partial cut. Partial cut is not feasible due to heavy brush cover over most of the unit, which would preclude natural regeneration. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Western hemlock is anticipated to regenerate naturally over most of the unit;

localized areas of wetter soils dominated by skunk cabbage will likely take longer to reach adequate stocking. Cedar is expected to be a minor component in the new stand, due to limitations in regeneration.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatments	planned at	this time.	

Transportation System: Accessed from Rd.#7605 by temporary spuseur road will be closed, waterbarred, and grass-seeded after		
Logging System: Designed for running skyline. May need multipl guy anchors due to small trees and landing location's proximit		
Unit Boundary: Provide for windfirm boundary, particularly al north boundaries.	ong eas	st and
Streamside Management: No concerns. Unit has no identified strwithin or immediately adjacent to boundaries.	ream cha	annels
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to Marking Guide for instructions for marking.		
Erosion Control: Close, waterbar, and grass-seed temporary roa	ads arte	er use.
Fuel Treatment: None prescribed.		
Planting: None prescribed at this time. Depending on adequacy in wetter areas, may need to consider spot planting cedar in tanimal Damage Control: None prescribed.		
Vegetation Management: None prescribed at this time. It is lation management will not be required for this unit.  Precommercial Thinning: None prescribed nor anticipated.	ikely d	that vege-
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	harves	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate		
need for spot planting wetter areas if regen. inadequate	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Prepared By: William R. Dougan Date: 08	3 /01 /9	92
Certified By: William Coughn Date: 08  Certified Silviculturist	3 /01 /9	92_

UNIT # 1521 of the <u>SE Chichagof</u> Timber Sale
STAND # 9, 22 VCU 230 MANAGEMENT AREA C34
ACRES 12 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1986</u> Flight Line <u>29</u> Photo #'s <u>1184-22</u> Scale: 1:12000 1/4 Quad ID: <u>SITD5SE</u>
SITE CHARACTERISTICS:
Elevation: 150 to 600 ft. Aspect: NW to NE Slope: 30 to 60%  Landform: Broken mountain slope  Slope Configuration: Convex Site Index (Farr): 66  Plant Association: Western hemlock-yellow cedar/blueberry/skunk cabbage.
Soil: <u>SMU =3663C</u>
Parent Material: Ablation till over compact till or colluvium.  Soil Depth cm: 150 Soil Texture: Silt loam to mucky silt loam.  Potential of Mass Failure: Moderate  STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 08/14/9 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents: Some weather damage evident. Light mistletoe. Minor stem decay
Species Composition (trees 5+" DBH): 39 %WH 9 %MH 45 %AC 7 %SS Stand Structure: Uneven aged; hemlock/cedar. Saps/poles are scatteed and not uniformly distributed. Heavy brush higher on slopes precluding seedlings.  Cedar is showing signs of decline, but mortality and defect is generally low.  Ave. Height: 78 ft. Basal Area: 291 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 12 in. Ave. TPA (trees 5+" DBH): 345  Ground Cover: 40%-70% blueberry, 5%-15% rusty menziesia.
Total Net Sawlog Vol/Acre: 25.9 MBF Total Unit Vol: 363 MBF Volume by Species: H 17.5 MBF AC 5.6 MBF SS 2.8 MBF  SUMMARY OF OTHER RESOURCES AND VALUES: No concerns in Fisheries or Hydrology. Soils: steep slopes in east part of unit; recommend full suspension. Ensure that boundary is above slope break of v-notch along west boundary.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for inten-
sive resource development where emphasis is primarily on commodity or market re-
sources, while providing for protection of physical and biological productivity.
Unit Objectives: Provide volume to the APC long term timber sale. Regenerate
stand resulting in a vigorous new stand which will yield sawlog size and quality
products in the next rotation. Provide for structural diversity through reten-
tion of snags and large down woody material.
Alternatives Considered: Regeneration harvests considered include clearcut with
reserve trees or partial cut. Partial cut is not feasible due to heavy brush
cover over most of the unit, which would preclude natural regeneration. Clear-
cut with reserve trees provides for the establishment and growth of desired
trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's let-
ter to Regional Foresters and Station Directors dated June 4, 1992).
MANAGEMENT PRESCRIPTION:
· · · · · · · · · · · · · · · · · · ·
Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock anticipated to regenerate with minor amount of cedar. Localized wetter
areas will likely regenerate slowly, and may need spot planting of cedar to
fully stock these areas.
Tully Stock these aleas.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar and/or spruce; hemlock is
least desirable for snag retention. Clump/group snags along backline or sides
of unit to maximize retention during yarding. If inadequate snags exist, mark
green trees for retention to serve as recruitment trees for snags. Utilize live
cull to the extent possible. Avoid marking mistletoed hemlock for retention.
The state of the s
Intermediate Treatments: No treatments planned at this time.
Indiana at this time.

waterbar, and grass-seed temporary roads after use.	003, 61	.use,
Logging System: Designed for running skyline. May need multiple guy anchors due to small trees and muskeg adjacent to landing. suspension. Require directional felling away from v-notch on e	Requir	e full
Unit Boundary: Keep boundary above slope break of v-notch along boundary.	the we	estern
Streamside Management: No Class I or II streams located within unit.	n or ac	ljacent to
Wildlife Management: See Reserve Trees.		
Reserve Trees: Leave 2 snags per acre for wildlife and structu Refer to Marking Guide for instructions for marking. Erosion Control: Seed temporary spurs once roads are closed a		
Fuel Treatment: None prescribed.		
Planting: None prescribed at this time. Depending on adequace in wetter areas, may need to consider spot planting cedar in tanimal Damage Control: None prescribed.		
Vegetation Management: None prescribed at this time. It is l tation management will not be required for this unit.  Precommercial Thinning: None prescribed nor anticipated.	ikely t	hat vege-
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years.		
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate		
need for spot planting wetter areas if regen. inadequate	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Prepared By: <u>William R. Dougan</u> Date: <u>08</u>	/01 /9	92
Certified By: Milliam R. Ougen Date: 08  Certified Silvicial turist	/01 /9	92_

UNIT # 1522 of the SE Chichagof Timber Sale

STAND #_9	VCU <u>230</u>	MANAGEMENT AREA C34	_
ACRES 8 Determined How: G		By Whom: T. Falkner	Date: 1991
Aerial Photo: Year <u>1986</u> Flig Scale: 1:12000 1/4 Quad ID: <u>SITD5SW</u>	ht Line_29	Photo #'s <u>1184-22</u>	
SITE CHARACTERISTICS:			
Elevation: 150 to 600 ft. Landform: Broken mountain slope.	_	to NE Slope: 4	10 to 60+%
Slope Configuration: Convex Plant Association: Western hemloc	k-yellow cedar/	Site Index (F blueberry/skunk cabba	
Soil: <u>SMU = 3663</u>			
Parent Material: <u>Ablation till o</u>			
Soil Depth cm: 150 Soil T Potential of Mass Failure: Moder		am to mucky silt loam	1.
STAND CHARACTERISTICS:			
Stand Examination: Type <u>R6 Qui</u> Stand History: <u>Wind processes ap</u> Potential Windthrow Hazard: <u>Mode</u> Damaging Agents: <u>Some weather dam</u>	ppear to be the perate	major stand developme	
Species Composition (trees 5+" D Stand Structure: Uneven Aged - he uniformly distributed. Heavy bru Cedar is showing signs of declin Ave. Height: 78 ft. Basa Ave. DBH (trees 5+" DBH): 12 in Ground Cover: 40%-70% blueberry.	emlock/cedar. Sa ssh higher on sl de, but mortalit al Area: 291 sq.f d. Ave. TPA (tr	ps/poles are scattere opes precluding seedl y and defect is gener t. Ave. Age: 150+ ees 5+" DBH) 345	ed and not ings.
Total Net Sawlog Vol/Acre: 25. Volume by Species: H 17.5 MBF  SUMMARY OF OTHER RESOURCES AND V No concerns in fisheries or hydr	AC <u>5.6</u> MBF		_
of steep slopes and v-notch alon			

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees or partial cut. Partial cut is not feasible due to heavy brush cover over most of the unit, which would preclude natural regeneration. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Western hemlock is anticipated to regenerate naturally over most of the unit;

localized areas of wetter soils dominated by skunk cabbage will likely take longer to reach adequate stocking. Cedar is expected to be a minor component in the new stand, due to limitations in regeneration.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.


Transportation System: Accessed by 2 temporary spurs off Rd. # 760	75; CIC	se,
waterbar, and grass-seed after harvest.		
Tarrier Garten Parismand for many in a chaling. Was a read multiple	/ -	
Logging System: Designed for running skyline. May need multiple		
artificial guy anchors due to small trees and muskeg adjacent t	co land	ling.
Require directional felling away from v-notch.		
White Boundary Von boundary along of shore along and a notable	b-+1	
Unit Boundary: Keep boundary clear of steep slopes and v-notch ceast boundaries.	on boti	i west and
		ah annal a
Streamside Management: No concerns. Unit has no identified station or immediately adjacent to boundaries.	ream C	nanners
within of immediately adjacent to boundaries.		
Wildlife Management: See Reserve Trees.		
Wildlie Management. Dee Nebelve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure	ral dis	zersity
Refer to Marking Guide for instructions for marking.	ar arv	reibicy.
Erosion Control: Seed temporary spurs after obliterating.		
beed comporary spars areer objected ing.		
Fuel Treatment: None prescribed.		
THE PLOSE PL		
Planting: None prescribed at this time. Depending on adequacy	of rec	generation
in wetter areas, may need to consider spot planting cedar in the		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed at this time. It is 1	ikelv t	that vege-
tation management will not be required for this unit.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	harves	st.
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate		
need for spot planting wetter areas if regen. inadequate	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silvs
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92_
m 600: 10 (1)		
Certified By: Milliam R. Ougan Date: 08	/01 /9	92
Certified Silviculturist		

UNIT # 1540 of the SE Chichagof Timber Sale STAND # 5, 9 VCU 230 MANAGEMENT AREA C34

ACRES 58 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-22
Scale: 1:12000
1/4 Quad ID: SITD5SW
SITE CHARACTERISTICS:
Elevation: 100 to 600 ft. Aspect: NW Slope: 30 to 45 %
Landform: Broken mountain slopes & frequently dissected footslopes/alluvial fans
Slope Configuration: Convex Site Index (Farr): 67
Plant Association: Western hemlock/blueberry/and western hemlock-yellow cedar/
blueberry.
Soil: <u>SMU = 3663C, 5293B.</u>
Parent Material: Ablation till over compact till, colluvium and alluvium.
Soil Depth cm: 150 Soil Texture: silt loam to mucky silt loam.
Potential of Mass Failure: Low
CHAND CHADACHEDICHICS.
STAND CHARACTERISTICS:
Stand Examination: R6 Quick Plot Type 11 Date 08/14/91
Stand Examination: Ro Quick Flot Type II Bate 00/14/91 Stand History: Wind processes appear to be the major stand development influence
Potential Windthrow Hazard: Moderate
Damaging Agents: Cedar on decline; med-high mistletoe. High defect and decay.
Lots of dead/dying tops and rot in some areas.
bets of deday dying cops and for in some dreas.
Species Composition (trees 5+" DBH): 45 %WH 9 %MH 40 %AC 6 %SS
Stand Structure: Uneven aged. Many small dbh trees with scattered larger trees.
Saps/poles are well stocked in some areas, scattered elsewhere. Few seedlings.
Ave. Height: 80 ft. Basal Area: 275 sq.ft. Ave. Age: 150+ yr.
Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300
Ground Cover: 30%-70% blueberry; 5%-10% rusty menziesia; <5% copperbush and
devil's club.
Total Net Sawlog Vol/Acre: 25.6 MBF Total Unit Vol: 1783 MBF
Volume by Species: H 17.8 MBF AC 5.2 MBF SS 2.6 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:
Hydrology: unit borders C.I. riparian zone in N.W. corner of unit. Protect
riparian area and maintain designed buffer, BMPs 13.15 and 13.16. Fisheries:
check for any unmapped rearing channels near the C.I. stream at layout. Adjust
buffer to accommodate any unmapped channels. Soils: Split yard v-notches or
full suspension across them. Recommend adjusting boundary around what appears
to be a slide in east part of setting 6. Stay above slope break of notch along
south boundary of setting 7. Wildlife: high quality (HSI=1.0) brown bear

habitat in riparian to the N.W.; avoid expansion into this area.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries habitat and maintain Class I buffer along unit boundary.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees or partial cut. Lack of manageable understory and high incidence of mistletoe infection in hemlock makes partial cut infeasible. Clearcut with reserve trees provides for minimizing adverse impacts of mistletoe infection and provides for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by artificial regeneration.

Hemlock will regenerate naturally, but anticipate regen. becoming infected with mistletoe. Localized wetter areas are confined to small openings and depressions and will be more difficult to regenerate naturally. Planting will ensure species diversity and will improve health of regenerating stand.

Marking Guide: Designate minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce. Clump/group snags along backline and along buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Transportation	System: Acces	sed by 2	temporary	spurs	off	Rd.#7605;	close,
waterbar, and	grass-seed af	er harv	est.				

Logging System: Designed for live skyline due to yarding distance (approx. 1,600 ft. EYD). Split yard or full suspension over v-notches. Directionally fell away from v-notches and Class I stream buffer.

Unit Boundary: N.W. corner of unit, protect riparian area and maintain designed buffers. Recommend adjusting bdry around what appears to be a slide in east part of setting 6. Stay above slope break of notch along south bdry of setting 7.

Streamside Management: Check for any unmapped rearing channels near the C.I. stream during layout. Adjust buffer to accommodate any unmapped channels. Ensure minimum 100 ft. buffer maintained intact along Class I stream.

Wildlife Management: High quality (HSI=1.0) brown bear habitat in riparian to the NW; avoid expansion into this area.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to Marking Guide for instructions for marking.

Erosion Control: Close, waterbar, and grass-seed temporary roads after use.

Fuel Treatment: None prescribed.

Planting: Plant entire unit with cedar and spruce. Plant 12 x 12. Plant spruce on lower slopes near stream; plant cedar on higher slopes.

Animal Damage Control: None prescribed.

Animal bamage control: None prescribed.

Vegetation Management: None prescribed at this time. Anticipate no need for vegetation management.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

#### MONITORING PLAN:

Activity and Date	Fund	Who
Plant cedar/spruce 12 x 12 spacing	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Survival exams 1 and 3 years after planting; natural regen.		
exam included in 3rd year	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish./Hydro

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 1590 of the SE Chichagof Timber Sale
STAND # 59 VCU 230 MANAGEMENT AREA C34
ACRES 66 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>31B</u> Photo #'s <u>2384-151</u> Scale: 1:12000 L/4 Quad ID: <u>SITD5SE</u>
174 Quad 12
SITE CHARACTERISTICS:
Elevation: 240 to 1200 ft. Aspect: SE Slope: 30 to 70 %  Landform: Smooth infrequently dissected mountainslopes and footslopes.  Slope Configuration: Convex Site Index (Farr): 78
Slope Configuration: Convex Site Index (Farr): 78 Plant Association: Western hemlock-yellow cedar/blueberry and western hemlock/ blueberry/shield fern
Soil: SMU = 3557C, 5141B.  Parent Material: Colluvium/residuum/ablation till.  Soil Depth cm: 150 Soil Texture: Gravelly silt loam to loam.
Potential of Mass Failure: Moderate
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 08/06/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: High
Damaging Agents: Pini and pinicola- occasional. Butt rot common. Minor stem decay and mistletoe. Forks and sweeps minor but common.
Species Composition (trees 5+" DBH): 65 %WH %MH 25 %AC 10 %SS Stand Structure: Uneven aged. Small dbh trees in lower elevations. Regen more than adequate in most areas. Heavy brush in lower elevations.
Ave. Height: 90 ft. Basal Area: 360 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 180  Ground Cover: 15%-25% blueberry; <10% rusty menziesia; shield fern common.
Total Net Sawlog Vol/Acre: 34.3 MBF Total Unit Vol: 2757 MBF Volume by Species: H 17.6 MBF AC 8.7 MBF SS 8.0 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:
No concerns for Fisheries, Hydrology or Soils. For Visuals: apply grass seed and fertilizer to cut/fill banks. Locate and design rockpits to minimize visual
impact. Mit. effects sidecast slash within 30 ft. of road shoulders. Make limited adjustments to soften the visual effect of the side boundaries.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence and poor health/vigor of present stand makes partial cut infeasible. Clearcut with reserve trees provides for minimizing adverse impacts of current forest health and provides for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over the unit; cedar will likely be a minor component due to limitations in regeneration. Advanced regeneration not destroyed during yarding will contribute to stocking and structural diversity in new stand.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Transportation System: Accessed on the north side by Rd. #7605, by Rd. #7568 and a spur off Rd. #7568. The spur off Rd. #7568 wi		
waterbarred, and grass-seeded after harvest.		
Logging System: Designed for live skyline uphill due to long re	ach (ar	prox. 1300
ft.) and running skyline downhill. May be shovel in setting 6	. Dire	ectionally
fell away from v-notch on west side. May be combined with Uni	t 1593	if both
are to be harvested.		
Unit Boundary: May be combined with Unit 1593 if both are harve	sted.	Presence of
blowdown throughout stand indicates priority need to layout wi		
Make limited adjustments to soften visual effect of side bound		boundaries.
Streamside Management: No concerns. Unit has no identified st		
within unit boundaries. Protect v-notch on west boundary during	g fall:	ing/yarding.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to Marking Guide for instructions for marking.		
Erosion Control: Apply grass seed and fertilizer to cut/fill sl	opes a	long roads.
Close, waterbar, and grass-seed temporary road after harvest.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	harve	st.
MONITORING PLAN:		
Activity and Date	Fund	Who
Activity and Date	Fund	WIIO
Natural regeneration exam 4-5 years after harvest	NA A	RD Silv.
	KV	
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
	1	
Duenous de Proc. William D. D.	101	
Prepared By: William R. Dougan Date: 08	/01 /9	12_
no foliam to Denta	-	
Certified By: ///////////////////////////////////	/01 /9	92

UNIT #1620 of the <u>SE Chichagof</u> Timber Sale
STAND # 59, 104
ACRES 24 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>31B</u> Photo #'s <u>2384-152</u> Scale: 1:12000 1/4 Quad ID: <u>SITD5SE</u>
SITE CHARACTERISTICS:
Elevation: 150 to 420 ft. Aspect: N to NE Slope: 5 to 35 % Landform: Infrequently dissected ftslopes & mountains with mass wasting/avalanche Slope Configuration: Convex Site Index (Farr): 96 Plant Association: Western hemlock/blueberry/devil's club and western hemlock/ blueberry/shield fern. Soil: SMU = 5121B, 3002E. Parent Material: Colluvium/Residuum Soil Depth cm: 150 Soil Texture: Gravelly silt loam. Potential of Mass Failure: Low to Moderate
Stand Examination: Type None Date / / Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate
Damaging Agents:
Species Composition (trees 5+" DBH): %WH %MH %AC %SS Stand Structure: Uneven-aged hemlock stand. Highly productive site.
Ave. Height:ft. Basal Area:sq.ft. Ave. Age: _150+ _yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: _40%-60% blueberry, 5%-30% devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF  Volume by Species: HMBF ACMBF SSMBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Fisheries - Unit borders Class I stream, check for any unmapped rearing channels during layout, Adjust buffer to protect any unchecked channels. BMP 12.6  Hydrology has no concerns. Soils - split yard on v-notches. There appears to be a v-notch in settting 5 that will either require full suspension or another landing. Wildlife - High quality (HSI=1.0) brown bear is located outside

of the unit boundary to the east and west of the unit. Avoid expansion into

this area upon verification of high quality habitat.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

Alternatives Considered: Regeneration harvest considered is clearcut with reserve trees. Clearcut with reserve trees will provide for the establishment and growth of desired trees (spruce and cedar) that are more shade intolerant than hemlock (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate naturally over the unit, with minor amounts
of spruce and cedar regeneration anticipated.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is spruce/cedar; hemlock is least
desirable for snag retention. Clump/group snags along backline, sides of unit,
or buffer to maximize retention during yarding. If inadequate snags exist, mark
green trees for retention to serve as recruitment trees for snags. Utilize live
cull to the extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: Precommercial thinning is anticipated in this unit.
Commercial thinning may be a viable option in the future, since site is highly
productive.

Transportation System: Accessed by temporary spur road off Rd.#7561. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

Logging System: Designed for running skyline. Locate landings to split yard v-notches. Require full suspension over v-notches if unable to split yard. Require directional felling away from v-notches and Class I stream buffer.

Unit Boundary: Provide for windfirm boundaries, particularly on north side where unit borders TTRA buffer.

Streamside Management: Unit borders Class I stream, check for any unmapped rearing channels during layout, adjust buffer to protect any unmapped channels.

BMP 12.6. Minimum 100 ft. buffer along Class I stream.

Wildlife Management: High quality (HSI=1.0) brown bear habitat is located outside of the unit to the east & west; avoid expansion of the unit into these areas.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to Marking Guide for instructions for marking.

Erosion Control: Close, waterbar, and grass-seed spur road after use.

Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed at this time. Monitor north portion of unit for development of salmonberry/devil's club, which may influence stocking Precommercial Thinning: Evaluate for PCT 15-17 years after harvest.

Commercial Thinning: Anticipate possibility of CT. Recommend stand exam 60-65 years after harvest to evaluate.

Final Harvest: 95-100 years following harvest.

#### MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; evaluate		
development of salmonberry/devil's club in unit	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
PCT exam 15-17 years after harvest		RD Silv.
PCT - based on results of exam		RD Silv.
Stand exam - evaluate need/opportunity for comm. thinning		
60-65 years after harvest		RD Silv.
Monitor TTRA buffer for effectiveness/windfirmness		Fish./Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified Bv:

Certified Silviculturist

Date: 08 /01 /92

UNIT #1670 of the SE Chichagof Timber Sale

STAND #14, 118,119 VCU 230 MANAGEMENT AREA C-34 ACRES 31 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1989 Flight Line 32B Photo #'s 2384-206 Scale: 1:12000 1/4 Quad ID: SITD5SE SITE CHARACTERISTICS: Elevation: 400 to 1000 ft. Aspect: NW to NE Slope: 30 to 80+ % Landform: Smooth frequently dissected mt.slopes & broken mt.slopes and hillsides. Slope Configuration: convex Site Index (Farr): 84 Plant Association: Mixed Conifer/blueberry and mixed conifer/skunk cabbage. Soil:SMU = 3221D, 3663C Parent Material: colluvium, residuum and ablation till over compact till. Soil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam. Potential of Mass Failure: moderate STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 08/15/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents: Low defect and weather damage. Cedar on decline and with moderate butt rot. Some forks, sweeps and dead tops, Species Composition (trees 5+" DBH): 95 %WH %MH 0 %AC 5 %SS Stand Structure: Uneven aged. Large dbh trees, smaller in canopy gaps. An exception to this is in stand 14 which is fairly open with smaller dbh trees. Saps and poles are mostly confined to canopy gaps. Ave. Height: 60-120. Basal Area: 210 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 12-22in. Ave. TPA (trees 5+" DBH): 100-400 Ground Cover: 60%-90% blueberry; <10% rusty menziesia, devil's club and copperbush. <5% salmonberrry Total Net Sawlog Vol/Acre: 17.4 MBF Total Unit Vol: 650 Volume by Species: H 16.1 MBF AC 0.8 MBF SS 0.5 MBF SUMMARY OF OTHER RESOURCES AND VALUES: Hydrology-No concerns, maintain designed unit boundary along slope break to Class III v-notch on west side of unit, and 100 ft. buffer to the slope break of the gorge area to the Class II valley bottom channel. BMP 13.16 and 12.6 Fisheries-no concerns. Soils-split yard notches between settings 3&4 and 4&5. Recommend full suspension in south third of setting 3 and partial suspension in

remainder of unit to protect sensitive soils. Visuals-Locate and design rockpits to minimize visual impacts. Locate roads and landings to minimize visual impacts. Blend boundaries with topo. features and natural openings.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III v-notch and Class II stream channel along unit boundary.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees or partial cut. Poor vigor and health of overstory precludes the use of partial cut. Clearcut with reserve trees will minimize adverse impacts to forest health and will provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by artificial and natural regeneration. Plant cedar 20 x 20 (~100 TPA) over entire unit for species diversity. Hemlock/spruce will naturally regenerate over most of unit, with cedar occupying wetter sites. Anticipate spruce stocking heavier on lower slopes, with hemlock dominating upper slopes.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar and/or spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit and along TTRA buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for retention as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock.

atments planned at this time.

Transportation System: Accessed by local road 75619. Road will be maintained at maintenance level 1 after harvest.

Logging System: Designed for slackline and running skyline. Require directional felling away from v-notches and Class II stream buffer. Split yard v-notches. Require partial suspension over entire unit due to high hazard soils, full suspension in setting 3.

Unit Boundary: Blend with topo. & natural openings. Locate west boundary along slope break above v-notch. Provide minimum 100 ft. buffer along Class II stream Streamside Management: Protect Class III v-notch stream along west boundary and Class II TTRA buffer along north boundary. Split-yard v-notches within unit boundary.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to Marking Guide for instructions for marking.

Erosion Control: Road maintenance on level 1 road to ensure road/culvert stability.

Fuel Treatment: None prescribed.

Planting: Plant entire unit with cedar, 20 x 20 foot spacing. Ensure wetter areas are planted.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed at this time. Monitor development of salmonberry/devil's club on lower slopes.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

#### MONITORING PLAN:

Activity and Date	Fund	Who
Plant unit with cedar, 20 x 20 foot spacing following harvest	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural		
regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Road maintenance (culverts, ditches, etc.) on level 1 road		Eng.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

Certified Silviculturist

Date: 08 /01 /92

UNIT # 1720 of the SE Chichagof Timber Sale VCU 230 MANAGEMENT AREA C34 STAND # 38 ACRES 21 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-25 Scale: 1:12000 1/4 Quad ID: SITD5SW SITE CHARACTERISTICS: Elevation: 750 to 1200 ft. Aspect: NW Slope: 50 to 65 % Landform: Smooth, infrequently dissected mtslopes/frequently dissected ftslopes. Slope Configuration: Convex Site Index (Farr): 66 Plant Association: Mt. hemlock/blueberry and Mt. hemlock/deer cabbage. Soil: SMU = 3551D, 5261BParent Material: Colluvium, residuum, ablation till and alluvium Soil Depth cm: 25-40 & 150 Soil Texture: Silt loam to gravelly loam Potential of Mass Failure: Moderate STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 08/01/91 Stand History: Wind processes appear to be major stand development influence Potential Windthrow Hazard: Low Damaging Agents: Cedar showing decline. No mistletoe. Some dead/dying tops. Species Composition (trees 5+" DBH): 15 %WH 50 %MH 25 %AC 10 %SS Stand Structure: 12"-22" dbh trees with scattered larger trees. Numerous wet areas scattered through stand with trees unevenly distributed. Saps/poles scattered but generallly adequate stocking. Ave. Height: 68 ft. Basal Area: 330 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300 Ground Cover: 25%-40% blueberry. 40%-50% rusty menziesia and copperbush. Total Net Sawlog Vol/Acre: 12.1 MBF Total Unit Vol: 309
Volume by Species: H 4.2 MBF AC 6.2 MBF SS 1.7 MBF SUMMARY OF OTHER RESOURCES AND VALUES: Hydrology - Unit is on a dissected mountainslope, concern for sediment delivery to the Class I stream. Objective is to prevent erosion and sediment delivery to channel. Prescribe directional falling/split yarding on v-notches, BMPS 13.16 and 13.11. Fisheries - no concerns. Soils - Split yard on v-notch between settings. Recommend partial suspension at a minimum over entire unit due to heavy v-notching.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Minimize soil disturbance/sediment production to protect v-notches and Class I stream.

Alternatives Considered: Requireration systems considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to economics of harvesting low volume, as well as the need to encourage cedar regeneration. Clearcut with reserve trees will provide for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Both hemlock and cedar are expected to regenerate following harvest; hemlock
will likely dominate due to more successful regeneration strategy. Wetter openings currently dominated by sitka alder will be slow to regenerate. Spruce and
cedar anticipated to be minor components in regeneration.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and along buffer to maximize retention during yarding. If inadequate snags exist, mark green trees for snag recruitment. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.		 
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Transportation System: Accessed by a spur road off the end of	Rd.#76	05. This
spur road will be closed, waterbarred, and grass-seeded after	harves	t.
*		
Logging System: Designed for running skyline. Require directi		
split yarding away from v-notches. Require partial suspension	n over	<u>entire</u>
unit. Directionally fell away from Class I stream buffer. M	lay need	artificial
guy anchors due to muskeg.		
Unit Boundary: Incorporate TTRA buffer into boundary. Provi	de for	windfirm
boundaries.		
Streamside Management: Layout minimum 100 ft. buffer along C		
Split-yard v-notches within unit to minimize sediment deliver	y to st	ream.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structu	ral div	ersity.
Refer to Marking Guide for instructions for marking.		
Erosion Control: Split-yard v-notches in unit, layout TTRA buf		
sediment delivery to Class I stream. Close, waterbar, and gr	ass-see	d spur road.
Fuel Treatment: None prescribed.		
Planting: None prescribed. Based on results of regen. survey	s, moni	tor for need
to spot plant cedar in wetter areas.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	g harve	st.
MONITORING PLAN:		
Datinitas and Data	Ima	l tab e
Activity and Date	Fund	Who
Natural reqeneration exam 4-5 years after harvest; monitor		
wetter areas/alder areas for need to spot plant cedar	KV	RD Silv.
Certification of natural regen. 4-6 years after harvest.	ICV	RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro
Prepared By: William R. Dougan Date: 0	0 /01 /	0.2
Prepared By: William R. Dougan Date: 0	0 / U 1	フム

Southeast Chichagof Final EIS \* Appendix L

Certified By: Milliam A

\_\_\_\_ Date: <u>08 /01 /92</u>

UNIT # 1730 of the <u>SE Chichagof</u> Timber Sale
STAND # 48 VCU 230 MANAGEMENT AREA C34
ACRES 5 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1986</u> Flight Line <u>29</u> Photo #'s <u>1184-24</u> Scale: 1:12000 1/4 Quad ID: <u>SITD5SW</u>
SITE CHARACTERISTICS:
Elevation: 550 to 1200 ft. Aspect: NW Slope: 35 to 65 9  Landform: Smooth, frequently dissected mountain slopes.  Slope Configuration: Convex Site Index (Farr): 84  Plant Association: Western hemlock/blueberry and western hemlock/shield fern.
Soil: SMU = 3247C, 3225D  Parent Material: Colluvium, ablation till over compact till and residuum.  Soil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam.  Potential of Mass Failure: Low to moderate
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 08/01/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low Damaging Agents: No mistletoe sighted. Some pini conks, forks, sweeps, checks and cracks.
Species Composition (trees 5+" DBH): 100 %WH 0 %MH 0 %AC 0 %SS Stand Structure: Uneven aged. Large diameter trees with scattered saps/poles.  Less than adequate stocking in the understory. Site appears fairly productive.  Brush species are not competitive.
Ave. Height: 136 ft. Basal Area: 320 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 25 in. Ave. TPA (trees 5+" DBH): 92  Ground Cover: 30%-60% blueberry; <10% rusty menziesia and salmonberry;  <5% shield fern.
Total Net Sawlog Vol/Acre: 60.5 MBF Total Unit Vol: 367 MBF Volume by Species: H 60.5 MBF ACMBF SSMBF
SUMMARY OF OTHER RESOURCES AND VALUES: Hydrology - Unit is in high mass wasting hazard soils zone, high potential for sediment delivery to C.I. channel. Objective is to reduce erosion and sed.del. Maintain designed buffer to C.I. & II streams. Log suspension required. BMPS 13.9, 13.11, 13.16, 12.6. Fisheries - no concerns, maintain designed buffers. Soils - Ensure that north and south boundaries are above v-notch slope breaks; Recommend partial suspension over entire unit due to stability problems.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource through protection of buffers and minimizing soil disturbance during yarding.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees or partial cut. Poor understory vigor and low stocking make partial cut undesirable. Clearcut with reserve trees will improve the chances of establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate naturally over the unit. Lack of spruce
and cedar seed sources in surrounding area will result in predominantly a hem-
lock stand.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce, if present.
Clump/group snags along backline or sides of unit to maximize retention during
yarding. If inadequate snags exist, mark green trees for retention to serve as
recruitment trees for snags. Utilize live cull to the extent possible. Avoid
marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time

Transportation System: Accessed by local road 76054. The drainage structures will be maintained after harvest. Logging System: Designed for running skyline. Require directional felling away from Class II stream buffers and v-notch. Require partial suspension for unit. Unit Boundary: Ensure that north and south boundaries are above v-notch slope breaks. Layout boundaries to minimize chance of blowdown, particularly along Class I and II buffers. Streamside Management: Maintain designed buffers along Class I and II streams. Minimize soil disturbance to prevent sediment delivery to stream channels. Locate unit boundaries above slope breaks. Wildlife Management: See Reserve Trees. Reserve Trees: 2 snags per acre left for wildlife and structural diversity. Refer to Marking Guide for instructions for marking. Erosion Control: Unit is in high mass wasting hazard soils zone, high potential for sediment delivery to C.I. channel. Maintain designed buffers and require log suspension. Road culverts will be maintained to minimize sediment. Fuel Treatment: None prescribed. Planting: None prescribed. Animal Damage Control: None prescribed. Vegetation Management: None prescribed at this time. Monitor development of salmonberry in unit, particularly if soil disturbance during yarding is high. Precommercial Thinning: None prescribed nor anticipated. Commercial Thinning: None prescribed nor anticipated. Final Harvest: Evaluate for harvest 95-100 years following harvest. MONITORING PLAN: Fund Who Activity and Date Natural regeneration exam 4-5 years after harvest KV RD Silv. Certification of natural regeneration 4-6 years after harvest KV RD Silv. Check road drainage structures annually RD Roads Check for blowdown timber annually each spring RD Silv. Monitor TTRA buffers for effectiveness and windfirmness Fish/Hydro

Certified By:

Certified Silviculturist

Date: 08 /01 /92

Date: 08 /01 /92

Prepared By: William R. Dougan

UNIT # 1731 of the SE Chichagof Timber Sale

ACRES 11 Determined How: GIS	By Whom: T. Falkner	Date: 1991
Aerial Photo: Year <u>1986</u> Flight Line <u>29</u> Scale: 1:12000 1/4 Quad ID: <u>SITD5SW</u>	Photo #'s 1184-24	
SITE CHARACTERISTICS:		
Elevation: 550 to 1200 ft. Aspect: NW  Landform: Frequently dissected footslopes and mou  Slope Configuration: Convex  Plant Association: Western hemlock/blueberry and	ntainslopes Site Index (F	
Soil:SMU = 5261B, 3247C		
Parent Material: <u>Colluvium, ablation till and abl</u> Soil Depth cm: <u>150</u> Soil Texture: <u>Mucky and</u> Potential of Mass Failure: <u>Low to moderate</u>		
STAND CHARACTERISTICS:		
Stand Examination: Type R6 Quick Plot Type 11 Stand History: Wind processes appear to be the ma Potential Windthrow Hazard: Low Damaging Agents: No mistletoe sighted. Some pini c cracks.	jor stand developme	nt influence
Species Composition (trees 5+" DBH): 100 %WH Stand Structure: Uneven Aged. Large dia. trees. Less than adequate stocking in the understory. U	Scattered saps and	poles.
Ave. Height: 136 ft. Basal Area: 320 sq.ft.  Ave. DBH (trees 5+" DBH): 25 in. Ave. TPA (tree Ground Cover: 30%-60% blueberry; <10% rusty menzi <5% shield fern.	s 5+" DBH): 92	
Total Net Sawlog Vol/Acre: 66.4 MBF Total U Volume by Species: H 62.9 MBF ACMBF	nit Vol: 798 MB SS 3.5 MBF	<u>F</u>
SUMMARY OF OTHER RESOURCES AND VALUES:		
Fisheries - no concern, maintain designed buffer.		
high mass wasting hazard soils zone. Objective: r		
delivery to C.I. stream. Maintain 100 ft. buffer suspension recommended (BMPS 13.5, 13.9,13.11).		
boundaries are above v-notch slope breaks; recomm		
entire unit because of stability problems.		

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource in adjacent stream and minimize soil displacement/erosion.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees or partial cut. Poor vigor and form and less than adequate stocking of understory make partial cut less desirable. Clearcut with reserve trees will allow for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to adequately stock the unit; spruce and cedar will like-
ly be present in only minor amounts due to lack of seed sources in immediate
vicinity.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce, if available.
Clump/group snags along backline, sides of unit, or along TTRA buffer to maxi-
mize retention during yarding. If inadequate snags exist, mark green trees for
retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Accessed by local road 76054. Drainage will be maintained after harvest.				
Logging System: Designed for running skyline. Require direction				
from Class I stream buffer and v-notches. Require partial susp	pension	n over		
entire unit.				
Unit Boundary: Ensure north and south boundaries are above v-not	ch slo	ope breaks.		
Layout TTRA buffer to minimize blowdown.				
Streamside Management: Unit is in high mass wasting hazard area				
for sediment delivery to C.I. stream. Maintain 100 ft. buffer to C.I. stream				
(BMP 13.16). Log suspension recommended. BMPS 12.6, 13.9, 13.3	ll and	13.16.		
Wildlife Management: See Reserve Trees.				
Reserve Trees: 2 snags per acre left for wildlife and structure	al div	ersity.		
Refer to Marking Guide for instructions for marking.				
Erosion Control: See remarks on streamside management above. I		· · · · · · · · · · · · · · · · · · ·		
will be maintained (culverts, ditches, etc.) to prevent sediment	nt tra	nsport.		
Fuel Treatment: None prescribed.				
Planting: None prescribed.				
Animal Damage Control: None prescribed.				
Vegetation Management: None prescribed at this time. Monitor		opment of		
salmonberry, particularly if high disturbance occurs during yas Precommercial Thinning: None prescribed nor anticipated.	raing.			
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Commercial Thinning: None prescribed nor anticipated.				
Final Harvest: Evaluate for harvest 95-100 years following has	rvest.			
The state of the s				
MONITORING PLAN:				
Activity and Date	Fund	Who		
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.		
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.		
Check road drainage structures annually		RD Roads		
Check for blowdown timber annually each spring		RD Silv.		
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro_		
Prepared By: William R. Dougan Date: 08	/01 /	92_		
M 600: M (1)				
Certified By: Date: 08  Certified Silviculturist	/01 /	92_		

UNIT # 1750 of the SE Chichagof Timber Sale

STAND #9, 35, 50 VCU 230 MANAGEMENT AREA C34

ACRES 36 Determined How: GIS By Whom: T.Falkner Date: 1991

Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-23

Scale: 1:12000

1/4 Quad ID: SITD5SW

#### SITE CHARACTERISTICS:

Elevation: 500 to 1000 ft. Aspect: W to NE Slope: 20 to 50 %

Landform: Smooth, frequently dissected mountainslopes.

Slope Configuration: Convex Site Index (Farr): 84

Plant Association: Western Hemlock/blueberry and mixed conifer/blueberry.

Soil: SMU = 3247C, 3225D

Parent Material: Colluvium, Residuum and ablation till over compact till.

Soil Depth cm: 150 Soil Texture: Mucky and gravelly silt loam.

Potential of Mass Failure: Low to moderate

#### STAND CHARACTERISTICS:

Stand Examination: Type R6 Quick Plot Type 11

Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.

Damaging Agents: Low to moderate defect, (pini and other rot). Moderate to high incidence of frost crack, broken tops, crook and forks. Light to moderate mistletoe. Light stem decay.

Species Composition (trees 5+" DBH): 50-90 %WH 0-10 %MH 20-40 %AC 0-5 %SS Stand Structure: Uneven aged. Many openings/gaps in stand. Fairly vigorous midstory in some areas. Saps/poles not well stocked in most areas.

Ave. Height: 80-100ft. Basal Area: 255 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 14-18in. Ave. TPA (trees 5+" DBH): 175-275 Ground Cover: 40%-70% blueberry; 5% rusty menziesia.

Total Net Sawlog Vol/Acre: 25.1 MBF Total Unit Vol: 1088 MBF Volume by Species: H 17.0 MBF AC 5.1 MBF SS 3.0 MBF

#### SUMMARY OF OTHER RESOURCES AND VALUES:

Fisheries - Check for secondary rearing channels during layout, adjust buffer to accommodate any unmapped channels. BMP 12.6.

Hydrology - Unit is in high mass wasting hazard area. High potential for sediment delivery to C.I. stream. Objective: reduce erosion and sed. delivery.

Maintain designed buffer, log suspension reg'd split yard on any v-notches,

BMPS 12.6, 13.9, 13.11. Soils - Split yard on v-notches between settings.

Recommend partial suspension in settings 2 and 3 because of numerous shallow notches. Maintain unit bndry at slope break of v-notch in north section of unit.

Visuals - locate & design rockpits to minimize visual impacts. Locate roads and landings to minimize visual impacts. Make limited adjustments to soften the backline edge.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in vigorous new stand which will yield sawlog and quality products. Provide for structural diversity through retention of snags and large woody material, as well as retaining midstory/understory in setting 1. Protect fisheries resource through TTRA buffer, minimizing soil disturbance.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. In setting 1, partial cut in the form of midstory and understory retention will be employed to provide structural diversity. For the remainder of the settings, clearcut with reserve trees will be employed due to low overstory/understory vigor and the presence of heavy brush which will preclude adequate regeneration. Clearcut with reserve trees will minimize adverse impacts of poor forest health and will provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: For setting 1: remove 24"+ DBH trees, retaining the vigorous midstory/understory. For remainder of unit, clearcut harvest followed by natural regeneration. Anticipate regeneration consisting primarily of hemlock, with smaller amounts of spruce and cedar. Small, localized gaps occupied by brush may regenerate more slowly and be at lower stocking levels.

Marking Guide: Setting 1: ITM trees 24"+ DBH for removal. If additional trees are required to be removed for skyline roads, ITM those trees for removal. Do not employ a spacing guideline in marking trees. Objective is to retain as much of the existing vigorous midstory/understory as possible, minimizing blowdown potential by retaining the majority of the stand.

Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce if available. Clump/group snags along backline, sides of unit or TTRA buffer to maximize retention. If inadequate snags exist, mark green trees to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time. Setting 1 should be evaluated for commercial thin opportunity during next entry into area.

Transportation System: Accessed by Rd. #7605 which runs through west side of the unit.

Logging System: Designed for running skyline and slackline. Require directional fell & yard away from v-notches & Class I stream buffer. Require partial suspension in all of unit. Setting 1: designate corridors and require carriage with lateral yarding capability; require directional felling. ITM > 24".

Unit Boundary: Maintain unit boundary at slope break of v-notch in north section of unit. Make limited adjustments to soften the backline edge. Minimum 100 ft. buffer along stream.

Streamside Management: Check for secondary rearing channels during layout, adjust buffer to accommodate any unmapped channels. BMP 12.6.

Wildlife Management: See Reserve Trees.

Reserve Trees: In setting 1, partial cut leaving 23" dbh and less. Also leave 2 snags per acre in entire unit. Refer to Marking Guide for instructions.

Erosion Control: Unit is in high mass wasting hazard area. High potential for sediment delivery to C.I, stream. Maintain designed buffers. Recommend log suspension. Maintain road (culverts, ditches).

Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: Evaluate setting 1 for opportunity to remove additional volume with future entry; consider windfirmness in any thinning prescription

Final Harvest: Evaluate for harvest in 95-100 years; setting 1 should be evaluated for harvest (either final or commercial thin) in next entry into area.

MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer effectiveness and windfirmness		Fish/Hydro
Evaluate setting 1 for commercial thin opportunity - next entry	y	Plan. Silv.
Evaluate setting 1 for final harvest - next entry		Plan. Silv.

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By: Millium 1

Certified Silviculturist

Date: <u>08 /01 /92</u>

	ONII # 1770	or the <u>BE chitche</u>	JOI IMPEL SAIC	
STAN	ID #_38	VCU 230	MANAGEMENT AREA C	34
ACRES 40	Determined Ho	ow: GIS	By Whom: T. Falkne	r Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: S		Flight Line_29	Photo #'s <u>1184-2</u>	3
SITE CHARACTER	ISTICS:			
Landform: Smoot Slope Configur	h infrequently ation: Convex	dissected mountai	to E Slope:  nslopes.  Site Index mixed conifer/copper	(Farr): 67
Soil: SMU = 35	51D, 3562D, 32	49E		-
Parent Materia				
			oam to gravelly loam	1.
Potential of M				
STAND CHARACTE		Out als Dist man 77		D-1- 00/00/01
			major stand developm	
Potential Wind			major scand deveropm	lenc influence
			in cedar, and showing	g decline in
			cks. High number of	
and sweeps.				
_		,	1 <u>26 % MH 58 % A</u>	
			ested muskeg to fair	volume. Dense
_cedar/nemiock	saps, and sca	attered poles.		
Ave. DBH (tree	s 5+" DBH): 12	in. Ave. TPA (t	ft. Ave. Age: 150+ crees 5+" DBH): 270 cry, copperbush and c	
		12.1 MBF Tota MBF AC <u>6.2 MB</u> F		MBF
SUMMARY OF OTH Hydrology and				
			of settings 4-6; ens	sure that
			spension for this uni	
steep slopes i	n the upper pa	art of the unit and	d wet soils in the lo	ower part.

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large woody material. Minimize soil disturbance to protect productivity.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to economic considerations of harvesting low volume as well as the need to provide for cedar and spruce regeneration. Clearcut with reserve trees will provide for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit, with spruce and cedar contributing to stocking in minor amounts. Localized areas of wetter soils and areas of high rock content will likely take longer to become stocked and may require spot planting of cedar to achieve adequate stocking.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Transp	port	tatio	on Sy	stem:	Acc	cesse	ed by	Rd.#76	505	and	a	tempo	cary	spur	road	that	runs
north	on	the	east	side	of	the	unit.	The	ter	npora	ary	spur	will	be	closed	1,	
waterk	oarı	red,	and o	grass-	-see	eded	after	harve	est.								

Logging System: Designed for running skyline and slackline. Require directional felling and yarding away from v-notch in middle of unit; fell away from Class I stream buffer. Require partial suspension in entire unit. May need multiple or artificial guy anchors.

Unit Boundary: There may be cliffs at the upper end of settings 4-6; ensure that boundary is below them. Incorporate TTRA buffer into boundary layout.

Streamside Management: TTRA buffer on Class I stream adjacent to unit. Split-yard v-notch in middle of unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.
Refer to Marking Guide for instructions for marking.

Erosion Control: Close, waterbar, and grass-seed temporary spur after use Maintain Rd. 7605 (culverts, ditches) to minimize erosion/sedimentation.

Fuel Treatment: None prescribed.

Planting: None prescribed. Monitor regeneration in wetter areas and rocky areas and spot plant cedar if regeneration is inadequate.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; monitor wet		
areas/rocky areas for need for spot planting cedar	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

Certified Silviculturist

Date: 08 /01 /92

UNIT # 1780 of the <u>SE Chichagof</u> Timber Sale

STAND # 38 VCU 230 MANAGEMENT AREA C34 ACRES 22 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-24 Scale: 1:12000 1/4 Quad ID: SITD5SW SITE CHARACTERISTICS: Elevation: 700 to 1300 ft. Aspect: SE to E Slope: 50 to 100+% Landform: Smooth, frequently dissected mountainslopes, and footslopes. Slope Configuration: Convex Site Index (Farr):66 Plant Association: Mountain hemlock/blueberry Soil: SMU = 3249E, 5261BParent Material: Colluvium/residuum Soil Depth cm: 25-40 & 150 Soil Texture: Gravelly loam and silt loam Potential of Mass Failure: Low STAND CHARACTERISTICS: Date 08/01/91 Stand Examination: Type R6 Quick Plot Type 11 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents: Some minor stem decay. No mistletoe. Some minor forks, sweeps and dead tops. Species Composition (trees 5+" DBH): 12 %WH 52 %MH 28 %AC 8 %SS Stand Structure: Uneven aged. 12"-22" dbh with larger scattered trees. Saps/poles scattered throughout stand. Stocking is less than adequate. Ave. Height: 68 ft. Basal Area: 330 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 303 Ground Cover: 50%-70% blueberry; 20%-30% rusty menziesia. Total Net Sawlog Vol/Acre: 12.1 MBF Total Unit Vol: 314 MBF Volume by Species: H 4.2 MBF AC 6.2 MBF SS 1.7 MBF SUMMARY OF OTHER RESOURCES AND VALUES: Hydrology - Unit is in high mass wasting soil hazard area. Objective: Reduce erosion and sediment delivery potential to C.I stream. Maintain designed buffer, log suspension reg'd, split yard on any v-notches, BMPS 12.6,13.9,13.11,13.16. <u>Fisheries - no concerns, maintain designed buffer to C.I. stream.</u> Soils - Split yard v-notch between settings 1 & 2. Recommend partial suspension <u>over entire unit because of numerous shallow notches and possible wetness</u> problems along lower boundary. Wildlife - High quality (HSI=1.0) brown bear habitat is located outside of the unit to the north. Avoid expansion into area

Forest Plan: VCU 230 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries and soils resources through maintaining TTRA buffer and minimizing soil disturbance during yarding.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to economics of harvesting low volume, combined with the need to maintain a windfirm stand in any partial cutting scheme. Clearcut with reserve trees will minimize the occurrence of windthrow and will provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate naturally over most of the unit, with minor
amounts of spruce and hemlock contributing to stocking. Upper slopes may be
slower to regenerate due to rocky soils.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump/group snags along backline or sides of unit
and along TTRA buffer to maximize retention. If inadequate snags exist, mark
green trees for retention to serve as recruitment trees for snags. Utilize live
cull to the extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportat	ion	Syste	em: A	cces	ssed by	Rd.#7605	running	south	into	the	unit.	The
temporary s	pur	road	will	be	closed	, waterban	rred, an	d grass	s-seed	ded	after	harvest.

Logging System: Designed for running skyline. Require directional felling and yarding away from the v-notch between setting 1 and 2. Require directional felling away from Class I stream buffer. Require partial suspension over entire unit.

Unit Boundary: Incorporate TTRA buffer into boundary layout. Provide for wind-firm boundaries, particularly along buffer and north boundaries.

Streamside Management: Minimum 100 ft. buffer along Class I stream. Require partial suspension over unit to minimize soil disturbance/sedimentation.

Wildlife Management: High quality (HSI=1.0) brown bear habitat is located outside of the unit to the north; avoid expansion into the area.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to Marking Guide for instructions for marking.

Erosion Control: Unit is in high mass wasting soil hazard area. Require partial suspension during yarding. Close, waterbar, and grass-seed spur road. Maintain Rd. 7605 culverts, ditches.

Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed nor andticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest 95-100 years following harvest.

#### MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness and windfirmness		Fish/Hydro

	Prepared	By:	William	R.	Dougan	
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Date: 08 /01 /92

Certified By:

Certified Silviculturist

Date: 08 /01 /92

UNIT # 2170 of the SE Chichagof Timber Sale STAND # 217,290,297 VCU 231 MANAGEMENT AREA C34

ACRES 69 Determined How: GIS By	Whom: T.Falkner Date: 1991
Aerial Photo: Year 1986 Flight Line 30 Ph Scale: 1:12000 1/4 Quad ID: SITD5SE	oto #'s 1084-87
SITE CHARACTERISTICS:	
Elevation: 100 to 500 ft. Aspect: SE  Landform: Frequently to infrequently dissected foots!  Slope Configuration: Valley bottom.  Plant Association: Sitka spruce/blueberry-devil's clubleberry.  Soil: SMU = 5243B, 3551D, 5143B.  Parent Material: Ablation till over compact till/coll  Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam to  Potential of Mass Failure: Low.	opes and mountainslopes Site Index (Farr): 60 ub and western hemlock/
STAND CHARACTERISTICS:	
Stand Examination: Type R6 Quick Plot Type 11 Stand History: Wind processes appear to be the major Potential Windthrow Hazard: Low Damaging Agents: Some minor defects in dead tops, for cracks. Generally low defect and disease.	stand development influence
Species Composition (trees 5+" DBH): 62 %WH 0 Stand Structure: Uneven aged. Primarily 20-30" + DBH story trees. Saps and poles confined primarily to o stocking under canopy. Understory generally of poor Ave. Height: 100 ft. Basal Area: 260 sq.ft. Ave. DBH (trees 5+" DBH): 22 in. Ave. TPA (trees 5 Ground Cover: 50%-60% blueberry; 10% Devil's club.	trees, with scattered mid- anopy gaps, with lower form and vigor. Ave. Age: 150+ yr.
Total Net Sawlog Vol/Acre: 40.7 MBF Total Unit Volume by Species: H 29.3 MBF AC 2.9 MBF S	Vol: 3391 MBF S <u>8.5</u> MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Soils, Fisheries and hydrology - No concerns.  Wildlife - High quality deer habitat (HSI=0.8), brow the south of unit. Avoid expansion into this area.  Cultural - Unit falls within high probability zone.  will be cleared before beginning harvest.	

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags, large woody material, and a portion of the midstory.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut is feasible in settings 5 and 6, where retaining trees for structural diversity and seed source will result in a more diverse regenerating stand. Clearcut with reserve trees will be employed in the remaining settings due to the lack of manageable midstory/understory. Clearcut with reserve trees provides for the establishment and growth of desirable trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut settings 1-4 followed by natural regeneration.

Partial cut settings 5-6, retaining up to 16" DBH trees, followed by natural regeneration. Both hemlock and spruce are anticipated to stock the new stand.

Spruce will be more successful in regenerating lower slopes; hemlock will be the major species anticipated to regenerate the upper slopes.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags in setting 1-4. Utilize live cull to the extent possible; in settings 5-6, green trees retained can serve as recruitment trees.

In settings 5-6, mark merchantable trees >16" DBH for removal. Do not include spacing guidelines in marking (all trees up to 16" are to be retained). If individual trees need to be removed for skyline corridors, mark for removal.

Intermediate Treatments: No treatments planned at this time.

spur roads will be closed, waterbarred, and grass-seeded after		
Logging System: Designed for running skyline. Settings 5 & 6:	Sugges	t ITM>16"
dbh. Protect residual: Require full/partial suspension, Design	nate c	orridors,
use rub trees, and require carriage with lateral yarding capab	ilitie	s.
Unit Boundary: Layout unit boundary to incorporate needs for	TTRA b	uffer along
south boundary (adjacent to unit); provide for windfirmness.		
Streamside Management: Class I stream is south of unit. Ensu	re uni	t lavout
accounts for need for TTRA buffer along stream.		
Wildlife Management: High quality deer habitat (HSI=0.8) and broad	own be	ar
habitat (HSI=1.0) located outside of the unit boundary to the		
Avoid expansion into these areas:		or one unite.
Reserve Trees: 2 snags per acre left for wildlife and structura	1 4:0	waite To
settings 5-6, retain up to 16" DBH trees for diversity and see		
Erosion Control: Require partial/full suspension. Maintain d		
and ditches) on Rd. 7561 & 75617. Close, waterbar, and grass-s	eed sp	urs.
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
7		
Precommercial Thinning: None prescribed nor anticipated.		
Company of a Mariana M		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	harve	oct
Tana Marvede Maradee 101 Marvede 11 73 100 years 10110wing	nar ve	.50.
MONITORING PLAN:		
Activity and Date	Fund	Who
MOCIVICY und Ducc	Tana	W110
Natural regeneration exam 4-5 years after harvest	kv	RD Silv.
Certification of natural regeneration 4-6 years after harvest		RD Silv.
Check road drainage structures annually	KV	RD Roads
Check for blowdown timber annually each spring	-	RD Silv.
Monitor adjacent TTRA buffer for effectiveness/windfirmness		Fish/Hydro
	-	
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Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Manual Rate: 08	/01 /	92
Certified Silviculturist	701	

STAND #24,27,31 VCU 231 MANAGEMENT AREA C34

UNIT # 2192 of the SE Chichagof Timber Sale

ACRES 25	Determined H	How: GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: Si		Flight Line 28	Photo #'s <u>1184-147</u>	
SITE CHARACTER	ISTICS:			
Landform: Frequency Slope Configura	uently dissed	cted footslopes and	SE to SW Slope: d alluvial fans Site Index (F	arr): 90
	l: Alluvium.	colluvium and abla		
Soil Depth: (cm) Potential of Ma			oam to mucky silt loam.	
STAND CHARACTE	RISTICS:			
Stand History: Notential Winds	Wind processe throw Hazard:	one es appear to be the : Moderate	major stand developmen	ate / / t influence
	e: <u>Uneven-ac</u>		WH %MH %AC stands. Appears to be	<u>%</u> SS a highly
Ave. DBH (tree:	s 5+" DBH):_	in. Ave. TPA	trees 5+" DBH):der,salmonberry and devi	
			tal Unit Vol:MB BF SSMBF	F
	as multiple s minimize soi:	small v-notches wit l disturbance above	th erosion hazard; requi	res partial

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term timber sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource by maintaining Class I and II buffers adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. The lack of detailed stand information and the need to provide for spruce regeneration makes partial cut infeasible. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate naturally over most of unit; spruce will
likely regenerate primarily on lower slopes. Localized areas of wetter soils
dominated by devil's club may take longer to reach adequate stocking.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is spruce/cedar; hemlock is least
desirable for snag retention. Clump/group snags along backline or sides of unit
or along buffers to maximize retention during yarding. If inadequate snags
exist, mark green trees for retention as recruitment trees. Utilize live cull
to the extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Unit accessed by temporary road off of Ro	1. /56]	./. Close,_
waterbar, and grass-seed after harvest.		
Logging System: Designed for running skyline. Require direction		
split yarding away from v-notches. Require partial suspension		
and 3. Require directional felling away from Class I and II st	ream b	ouffers.
Unit Boundary: Layout unit boundary to incorporate TTRA buffer	s.	
Streamside Management: Maintain 100 ft. buffers along Class I	and I	streams.
Layout buffers for windfirmness.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structura	1 4:11	and it is
Refer to marking guide for instructions for marking.	ar arve	sibility.
Erosion Control: Unit has multiple small v-notches with erosion	hagai	rd: roquires
partial suspension. Close, waterbar, and grass-seed temp. road	post	-use.
Fuel Treatment: None prescribed.		
Planting. None proggrihed		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
initial samage concrete none prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: Evaluate for PCT 14-16 years after has	cvest.	Anticipate
need for PCT due to productivity of site.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 90-95 years after harve	est.	
MONITORING PLAN:		
	l ,	l
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
PCT Exam 14-16 years after harvest		RD Silv.

D	73'33' D D			101	100
Prepared By:	William R. Dougan	Date:	<u>08</u>	/01	192

Certified By: Date: 08 /01 /92

Certified Silvigulturist

PCT - based on results of PCT exam

Monitor TTRA buffers for effectiveness/windfirmness

RD Silv.

Fish/Hydro

UNIT # 2200 of the SE Chichagof Timber Sale STAND # 30 VCU 231 MANAGEMENT AREA C34 ACRES 5 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 28 Photo #'s 1184-147 Scale: 1:12000 1/4 Quad ID: SITD5SW SITE CHARACTERISTICS: Elevation: 400 to 600 ft. Aspect: SE to SW Slope: 5 to 35 % Landform: Frequently dissected foothills and alluvial fans. Slope Configuration: Convex Site Index (Farr): 100 Plant Association: Sitka spruce/blueberry-devil's club. Soil:SMU = 5264BParent Material: Alluvium Soil Depth: (cm) 150 Soil Texture: Gray silt loam. Potential of Mass Failure: Low STAND CHARACTERISTICS: Stand Examination: Type None Date / / Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate Damaging Agents:\_\_\_\_ Species Composition (trees 5+" DBH): %WH %MH %AC %SS Stand Structure: <u>Uneven-aged spruce stand</u>. Ave. Height: \_\_\_\_ft. Basal Area: \_\_\_sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 30% blueberry; 5%-20% devil's club, salmonberry and sitka alder. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF Volume by Species: H MBF AC MBF SS MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - soil erosion hazard requires partial suspension. Fisheries, Wildlife and Hydrology - No concerns.

Forest Plan: VCU 231 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource through TTRA buffer along stream.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and the need to provide for spruce regeneration make partial cut infeasible. Clearcut with reserve trees provides for the establishment and growth of desired trees that are shade intolerant (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. It is anticipated that spruce will regenerate naturally over unit; disturbance during yarding will be required to expose mineral seedbed. If excessive disturbance occurs, site will likely be invaded by salmonberry/alder, requiring planting to successfully stock the site.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit, and TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermedi	ate Treatmen	ts:	No treatmer	nts planne	<u>ed at</u>	this	time	•	li ed	conomi	LCALLY	
feasible,	possibility	for	commercial	thinning	may	exist	due	to	high	site	pro-	
ductivity	•											
		, ,										

Transportation System: Accessed by temporary road. Close, waterbar and grass seed after use.
Logging System: Designed for running skyline. Require partial suspension. Require directional felling away from Class I and II stream buffers.
Unit Boundary: Incorporate TTRA buffers for Class I and II streams into unit boundary layout. Minimum 100 ft. buffers prescribed along streams.  Streamside Management: Buffer required on Class I and II streams.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.  Refer to marking quide for instructions for marking.  Erosion Control: Require partial suspension during yarding to minimize soil erosion in unit. Close, waterbar and grass seed temporary road.  Fuel Treatment: None prescribed.
Planting: None prescribed. Monitor development of salmonberry/alder in unit.  Consider planting spruce if brush becomes established prior to natural regen.  Animal Damage Control: None prescribed.
Vegetation Management: Monitor development of salmonberry/alder for vegetation management needs. Not anticipated to be a need.  Precommercial Thinning: Evaluate for PCT 12-14 years after harvest. Base need for thinning on results of PCT exam.
Commercial Thinning: Possibility exists for commercial thinning; evaluate with stand exam 55-60 years after harvest.

## MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Evaluate need for PCT - do PCT exam 12-14 years after harvest		RD Silv.
PCT - based on results of PCT exam, 14-16 years after harvest		RD Silv.
Monitor effectiveness of TTRA buffers		Fish/Hydro
Evaluate need for commercial thin - stand exam 55-60 yrs.		RD Silv.

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: \_\_\_\_\_\_\_ Date: 08 /01 /92 Certified Silvicelturist

UNIT # 2210 of the SE Chichagof Timber Sale

STAND # 53 VCU 231 MANAGEMENT AREA C34 ACRES 25 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 28 Photo #'s 1184-146 Scale: 1:12000 1/4 Quad ID: SITD5SW SITE CHARACTERISTICS: Elevation: 360 to 1000 ft. Aspect: SE Slope: 45 to 75 % Landform: Smooth, infrequently dissected mountain slopes. Slope Configuration: Convex Site Index (Farr): 99 Plant Association: <u>Mixed conifer/blueberry</u>. Soil: SMU = 3521DParent Material: Colluvium/residuum Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam. Potential of Mass Failure: Low. STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 07/18/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low. Damaging Agents: Cedar showing decline. Weather damage evident. Possible light mistletoe infection in hemlock. Species Composition (trees 5+" DBH): 50 %WH %MH 50 %AC %SS Stand Structure: Uneven aged. Poles/saps/seedlings in openings. Generally well stocked, with very little brush competition. Ave. Height: 64 ft. Basal Area: 160 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 118 Ground Cover: 80%-90% Blueberry; <5% salmonberry. Total Net Sawlog Vol/Acre: 12.9 MBF Total Unit Vol: 391 Volume by Species: H <u>3.6 MBF</u> AC <u>9.3 MBF</u> SS \_\_\_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES: Fisheries, Hydrology , Soils, and Wildlife - No concerns.

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term sale. Regenerate stand resulting in a more vigorous new stand which will yield sawlog and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Provide for species diversity through including cedar component in new stand.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to poor health and vigor of overstory. However, there is a desire to retain advanced regeneration wherever possible, particularly cedar. Clearcut with reserve trees will minimize the potentially adverse impacts of declining overstory health in the stand, as well as provide for establishment and growth of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by artificial regeneration and natural regeneration. Hemlock is expected to regenerate naturally over most of the unit; localized wetter areas will be more difficult to regenerate naturally. To ensure cedar remains a component in the stand, plant cedar across entire unit.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	Possibility	exists	for	commercial	thinning	due	to	high
productivity	of site.								
		**							
					<del></del>				

Transportation System: Accessed by temporary spur road that will be closed, waterbarred and grass-seeded after harvest.
Logging System: Designed for running skyline. To the extent possible, strive to retain advanced regeneration (particularly cedar) for diversity in the new stand.
Unit Boundary: Layout boundary for windfirmness.
Streamside Management: No concerns. TTRA buffer lies to the south of unit.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.  Refer to marking quide for instructions for marking.  Erosion Control: Close, waterbar, and grass-seed temporary roads after harvest.
Fuel Treatment: None prescribed.
Planting: Plant entire unit with cedar following harvest. Plant at wide spacing (20 x 20 ft.) and ensure wetter areas are planted.  Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 15-17 years after harvest. If thinning is indicated, favor cedar as crop trees to be retained.
Commercial Thinning: Evaluate for commercial thinning 60-65 years after harvest using stand exam.
Final Harvest: Evaluate for harvest 100-110 years after harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Plant cedar 20 x 20 ft. spacing after harvest.	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural		
regen. during 3 year exam	KV	RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer adjacent to unit for effectiveness		Fish/Hydro

Prepared By: William R. Dougan Date: 08 /01 /92

Certified Silviculturist

Date: 08 /01 /92

UNIT # 2290 of the SE Chichagof Timber Sale

ACRES 25	Determined Ho	ow: GIS	By Whom: T.	Falkner Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: 6	)	Flight Line 28	Photo #'s_	1184-146
SITE CHARACTER	RISTICS:			
Landform: Broke Slope Configur	ration: Lower	pes to smooth, fr	equently dissect	Slope: 25 to 75 % ed mountainslopes. Index (Farr): 58
Soil: SMU = 36	663C, 3247C, 3	690B		
Parent Materia Soil Depth:(cr	al:Colluvium,	ablation till ove oil Texture: <u>Silt</u>		nd organic material. lt loam and peat.
STAND CHARACTE	ERISTICS:			
Stand History: Potential Wind	: Wind processed throw Hazard:		he major stand d	evelopment influence
mistletoe note				
Stand Structur	re: <u>Uneven aged</u> opy gaps. Und		and. Saps/poles	3 %AC 5 %SS /seedlings confined Localized areas of
Ave. Height: 90 Ave. DBH (tree	0-120ft. es 5+" DBH): <u>16</u>	Basal Area: 200 s -26in. Ave. TPA erry; 5% salmonb	(trees 5+" DBH):	
	_	30.1 MBF To MBF AC <u>0.5 M</u>		
SUMMARY OF OT	HER RESOURCES	AND VALUES:		
	mend full susp		ches and over we	t areas along bottom
		ldlife - No conce	rns.	
				-

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soils/v-notches during yarding operations.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to unmanageable understory and general low vigor of overstory. Clearcut with reserve trees will minimize the occurrence of adverse impacts affecting forest health and provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit, with cedar and spruce being minor components of new stand. Monitor cedar regeneration to ensure it is a component in new stand; consider interplanting cedar if natural regeneration of cedar is inadequate.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

THEOTHOUSE CO	TICACMCHCS	NO CLEACINE	nes pranned	ac chilb cime.	
	`				

seed after use.	LDAL AI	u grass
Logging System: Designed for running skyline. Require directio from v-notches and split yard. May need artificial guy anchor adjacency to muskeg.		
Unit Boundary: Layout windfirm boundaries.		
Streamside Management: Protect v-notches in unit through direc split-yarding.	tional	felling and
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure Refer to marking quide for instructions for marking.  Erosion Control: Close, waterbar and grass seed temporary road v-notches during yarding.  Fuel Treatment: None prescribed.		
Planting: None prescribed at this time. Monitor effectiveness and consider planting cedar if regeneration is inadequate.  Animal Damage Control: None prescribed.	of ce	dar regen.
Vegetation Management: None prescribed nor anticipated. Moni salmonberry on lower slopes, particularly if heavily disturbed Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following MONITORING PLAN:	narve	<u> </u>
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check road drainage structures annually  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. RD Roads RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92_
Certified By: Mallium R. Orugem Date: 08	/01 /9	92_

UNIT # 2300 of the <u>SE Chichagof</u> Timber Sale

STAND #183,204,384 VCU 231 MANAGEMENT AREA C34

ACRES 28 Determined How: GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Year <u>1986</u> Flight Line <u>29</u> Scale: 1:12000 1/4 Quad ID: <u>SITD5SW</u>	Photo #'s 1184-29	
SITE CHARACTERISTICS:		
Elevation: 200 to 1000 ft. Aspect: NW Landform: Smooth, frequently dissected mountains Slope Configuration: Convex/valley bottom. Plant Association: Mixed conifer/blueberry	slopes.	40 to 75 %
Soil: SMU = 3247C		
Parent Material: Colluvium and ablation till over Soil Depth: (cm) 150 Soil Texture: Mucky solution Potential of Mass Failure: Low to moderate		
STAND CHARACTERISTICS:		
Stand Examination: Type R6 Quick Plot Type 11 Stand History: Wind processes appear to be the Potential Windthrow Hazard: Low Damaging Agents: Weather damage evident (forks, more decadent trees. Mistletoe present, but so	major stand developme sweeps). Rots preser	
Species Composition (trees 5+" DBH): 80 %WH Stand Structure: Uneven aged. Larger trees with Low stocking of saps/poles due to heavy brush to become stocked with understory trees. Ave. Height: 95-115ft. Basal Area: 220 sq.fd Ave. DBH (trees 5+" DBH): 14-18in. Ave. TPA (trees of the same of the	h scattered smaller di layer; canopy gaps are ft. Ave. Age: 150+ rees 5+" DBH): 150-200	Lameters.  beginning  yr.
Total Net Sawlog Vol/Acre: 33.0 MBF Total Volume by Species: H 30.4 MBF AC 0 MBF	l Unit Vol: 1123 ME SS 2.6 MBF	3F
SUMMARY OF OTHER RESOURCES AND VALUES: Fisheries - No concerns. Hydrology - Unit is soils zone and a C.III stream is within unit. sediment delivery to C.II and C.III streams. suspension req'd; BMPS 13.9, 13.11 and 13.16. Soils - Recommend full suspension over v-notche Ensure east boundary is above slope break of v-remainder of unit.	Objective: Reduce of Split yard on C.III s	erosion and stream, log yarded.

Forest Plan: VCU 231 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soils and Class 2 and 3 streams within and adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut is not feasible due to heavy brush over most of unit which precludes adequate regeneration, as well as the general decadence of the overstory, which precludes retention of vigorous trees. Clearcut with reserve trees will minimize potentially adverse impacts to forest health as well as provide for the establishment and growth of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of unit; spruce will requerate on lower slopes if adequate disturbance occurs. Presence of salmon-berry will require monitoring to determine need for planting if heavy disturbance occurs during yarding.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	No treatments	planned at th	is time.	

Transportation System: Accessed by Rd.#75615.		
Logging System: Designed for running skyline and slackline. Is suspension for entire unit due to high hazard soils; full suspension. Directionally fell away from v-notches.		
Unit Boundary: Incorporate TTRA buffer layout into unit boundary for windfirmness. Locate east boundary above slope break	k of v-	notch.
Streamside Management: Protect Class 3 stream in unit and Class adjacent to unit.	ass 2 a	nd 3 streams
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structus Refer to marking guide for instructions for marking.		
Erosion Control: Require partial suspension over unit and full streams to minimize erosion potential. Maintain drainage on I Fuel Treatment: None prescribed.		
Planting: None prescribed at this time. Monitor development of lowing yarding disturbance to determine need for interplanting Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed at this time. Developing may require treatment to ensure satisfactory growth/survivo Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	g harve	st.
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 3-4 years after harvest; evaluate		
development of salmonberry and need for planting	KV	RD Silv.
Certification of natural regen. 4-5 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer and streams within unit		Fish/Hydro
Check road drainage structures annually		RD Roads
Prepared By: William R. Dougan Date: 0	8 /01 /	92
Date. of	<u> </u>	<u>, , , , , , , , , , , , , , , , , , , </u>

Southeast Chichagof Final EIS \* Appendix L

Certified Silvioulturist

Certified By: Mallan R.

Date: 08 /01 /92

# UNIT # 2341 of the <u>SE Chichagof</u> Timber Sale STAND #218,223,226 VCU 231 MANAGEMENT AREA C34

ACRES 34 Det	ermined How: G	T.C.	Dr. Whome Talknow	Data 1001
ACKES 34 Dec	ermined nowG	710	By Whom: T. Falkner	Dace: 1991
Aerial Photo: Yea Scale: 1:12000 1/4 Quad ID: SITD5		ht Line_30	Photo #'s 1084-88	
SITE CHARACTERISTI	CS:			
Elevation: 100 to Landform: Smooth, for Slope Configuration: Plant Association:	requently disson: Valley bott	sected mountainslo		to 75 %
Soil: <u>SMU = 3151D</u> ,				
Parent Material: Co Soil Depth: (cm) 25 Potential of Mass	5-40&150 Soil T	exture: Silt loam	to gravelly loam.	
STAND CHARACTERIST	CICS:			
Potential Windthro	d processes app ow Hazard: <u>Low</u> Low defect. Sc	pear to be the majorto moderate	Da or stand development . Scattered blowdow	
	•		-30 %MH 10-40 %AC ered spruce/cedar.	
			ower slopes. Seedli	
			in places.	
Ave. DBH (trees 5+	-" DBH): 16 in	Ave. TPA (tree	Ave. Age: 150+ y s 5+" DBH):190-220 y and rusty menziesi	
<5% sitka alder.				
Total Net Sawlog V Volume by Species:			nit Vol: <u>1252 MBF</u> SS <u>O</u> MBF	2
SUMMARY OF OTHER F			a high mass wasting	r soil
hazard area. Empl				
		on on slopes >75%	along backline, and	partial
Suspension over re		high probablility	y zone. Survey is u	ınderway
			harvest activities.	inderway.

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect the soil resource.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to low vigor of the overstory and concerns with blowdown following partial cutting. Clearcut with reserve trees will minimize the adverse impacts of windthrow and poor vigor on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to naturally regenerate most of unit; spruce and cedar
will be minor stand components. Areas of thinner soils/rocky areas will be more
difficult to regenerate.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump/group snags along backline or sides of unit
to maximize retention during yarding. If inadequate snags exist, mark green
trees for retention to serve as recruitment trees for snags. Utilize live cull
to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

a

Transportation System: Accessed by Rd.#75616.		
Logging System: Designed for running skyline and slackline. R	equire	partial
suspension due to high hazard soils.		
White Boundaries Describe windfilm boundaries		
Unit Boundary: Provide windfirm boundary.		
Streamside Management: Numerous small v-notches in unit. No	major :	streams in
or adjacent to unit.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Unit is in a high mass wasting soil hazard ar	ea. Em	oloy erosion
prevention measures. BMP 13.11. Require partial suspension.	Main	tain drain-
age on Rd. 75616 (culverts, ditches).		
Fuel Treatment: None prescribed.		
Planting: None prescribed. Monitor stocking in brushier areas	•	
Animal Damage Control: None prescribed.		
Aminal banage conclus. None prescribed.		
Vegetation Management: Monitor development of salmonberry/ald	er on	lower slopes
following yarding. No treatment anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	harve	st.
MONITORING PLAN:		
	1	1
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually	IXV	RD Roads
Check for blowdown timber annually each spring	1	RD Silv.
one in the second of the secon		ND OIIV
Prepared By: William R. Dougan Date: 08	/01 /9	92
Mad Minus 12 (C)		
Certified By: Date: 08	/01 /9	92_
Certified Silvigulturist		

UNIT # 2350 of the SE Chichagof Timber Sale STAND #218,225,228 VCU 231 MANAGEMENT AREA C34

ACRES _	39	Determin	ned Ho	w: GIS			By Whom: I	.Falkner	Date: 1991	
	<b>5</b> 1 ( -	10	0.5	<b>-</b> 2.1.1.1	<b>-</b> .	20	21 -1 - "	1004 00		
	Photo:	Year 19	86	Flight	Line_	30	Photo #'s	1084-88		
	1:12000	_								
1/4 Qua	ad ID: S	ITD5SE								
SITE C	HARACTER	ISTICS:								
71	150	t = 50	0 64		2		377.7	G1	25 +- 60	
									25 to 60	
									tnslopes.	—
_	_					n		•	arr): 47	—
Plant A	Associati	ron: Mix	ed con	ifer/b	lueber	cy and mi	xed conife	er/skunk c	abbage.	
Coile	CMII - 611	7.4D 2.E.E.	10 21	350						—
	$\frac{\text{SMU} = 61^{\circ}}{\text{Material}}$				and w	esiduum.		<del></del>		—
								1 - 1		—
							ravelly si	it loam.		
Potent:	ial of Ma	ass rail	ure: M	oderat	e to 10	5W •				_
CTAND A		DICTIOS.								
STAND	CHARACTE	KISIICS:	•							
Stand 1	Evaminat:	ion: Tv	ne R6	Ouick	Plot T	vne 11		ח	ate 07/21/	91
									t influenc	
	ial Wind				II CO DI	e che majo	or scand c	developmen	c minuenc	
			_		+o +o 1	nigh dofo	at (xota	woathor	damage, an	<del></del>
									age. Ceda	
	signs of			MISCI	ecoe.	Scand 22.	J - less C	derect/dam	age. Ceua	<u>-</u>
				+" DBH	1) • 70	HW <u>#</u>	25 9MH	5 %AC	0 888	_
									tand. Sta	nd
									es confine	
	s; seedl:						vigorous.	Saps/poi	es contine	<u>u_</u>
							7110 70	ge: 150+	177	
	_						s 5+" DBH)		<u>Y</u> •	
									h.	
			bluebe	rry; 1	.U% rus	cy menzie	sia and de	evil's clu	D;	
<u> </u>	lmonberr	<u>Y •                                     </u>								-
Total 1	Mot Saul	og 1/01/7		20 1	MDE	motal II	nit Vol:_	1202 MD	T.	
									<u>F</u>	
vorume	by Spec	ies: H	27.0 M	br	AC _1.	3_MBF	SS	MBF		
SIIMMAD	Y OF OTH	ED DECOM	IDCEC A	אות נואד	mrc.					
						coila	anlit	d on v-not	ahoa	
				on si	opes >	50% CO M1.	nimize soi	ll disturb	ance.	_
	fe - No			1. * . 1.						
						ility zon	e. Survey	/ is under	way. Unit	
WIII b	e cleare	<u>a perore</u>	narve	st bec	ins.					—
										_

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Provide for soil protection, particularly on steeper slopes and along v-notches.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Stand 223 is feasible to partial cut, but less than 1 acre of unit is within this stand. Remainder of unit is in a decadent condition and is not feasible to partial cut. Clearcut with reserve trees will minimize adverse impacts affecting forest health as well as provide for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments:	Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to	regenerate over most of unit; small localized wet
areas will likely take le	onger to regenerate. Cedar is anticipated to be a minor
stand component due to 1	imited natural regeneration.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	No treat	ments pla	anned at t	his time.	 
		· · · · · · · · · · · · · · · · · · ·				 

Transportation System: Accessed by Rd.#7561 and Rd.#75616; road unit.	d inter	section in
Logging System: Designed for running skyline and slackline. Resuspension for settings 2 and 4 due to high hazard soils. Requested and split yard away from v-notch between settings 4 and	uire di	
Unit Boundary: Layout windfirm boundary.		
Streamside Management: Provide protection to v-notch between so No other streams in or immediately adjacent to unit.	ettings	s 4 and 5.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure Refer to marking quide for instructions for marking.  Erosion Control: Partial suspension in settings 2 and 4. Yard v-notch in unit. Maintain drainage (culverts, ditches) on Rds  Fuel Treatment: None prescribed.	d away	from
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: Lower portion of stand can be expected berry competition following disturbance. Monitor for need to precommercial Thinning: None prescribed nor anticipated.  Commercial Thinning: None prescribed nor anticipated.  Final Harvest: Evaluate for final harvest in 95-100 years followed.	treat.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest Certification of natural regeneration 4-6 years after harvest Check road drainage structures annually Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. RD Roads RD Silv.
Prepared By: <u>William R. Dougan</u> Date: <u>08</u>	/01 /9	92
Certified By: Millim R. Ouline Date: 08  Certified Silviculturist	/01 /9	92

UNIT # 2390 of the SE Chichagof Timber Sale 

ACRES 60 Determined How: GIS	By Whom: T. Falkner	Date: 1991
Aerial Photo: Year 1986 Flight Line 29 Scale: 1:12000	Photo #'s 1184-28	
1/4 Quad ID: SITD5SW		
		`
SITE CHARACTERISTICS:		
Elevation: 160 to 800 ft. Aspect: S to		
Landform: Smooth, infrequently dissected mtslopes		
Slope Configuration: Convex/valley bottom		
Plant Association: western hemlock/blueberry and	western hemlock/dev	il's club/
shallow soils.		
Soil: SMU = 3551D, 5234B		
Parent Material: Colluvium and residuum.		
Soil Depth: (cm) <u>25-40&amp;15</u> 0 Soil Texture: <u>Silt loam</u> Potential of Mass Failure: <u>Low to moderate</u> .	to gravelly loam.	
Potential of Mass Fallure: Low to moderate.		
STAND CHARACTERISTICS:		
Stand Examination: Type R6 Quick Plot Type 11	D	ate 07/18/93
Stand History: Wind/slides appear to be major star		
Potential Windthrow Hazard: Low to moderate.		
Damaging Agents: No mistletoe, little defect and o	disease. Fairly hea	lthy stand.
Saps/poles and seedlings in canopy gaps.		
Species Composition (trees 5+" DBH): 100 %WH	<u>%</u> MH <u>%</u> AC	%SS
Stand Structure: Uneven aged. Dense stand with la		
Saps/poles/seedlings confined mainly to canopy ga	aps. Shallow soils	and surface
rock over upper portions of unit.		
Ave. Height: 100-130ft. Basal Area: 290 sq.ft.		yr.
Ave. DBH (trees 5+" DBH): 14-18in. Ave. TPA (tree		
Ground Cover: 15%-20% blueberry in one portion uni	Lt and 80%-90% in re	mainder.
<pre>&lt;5% rusty menziesia; 5%-10% devil's club.</pre>		
Total Net Sawlog Vol/Acre: 67.9 MBF Total U	Unit Vol: 4965 MB	ਜ
Volume by Species: H 67.9 MBF AC 0 MBF		-
<u> </u>		
SUMMARY OF OTHER RESOURCES AND VALUES:		
Fisheries - Check for unmapped rearing/spawning of	channels during layo	ut. Protect
any unmapped channels. BMP 12.6 Hydrology -	Highly active C.I.	stream
system, may be secondary channels. BMP 12.6, 13.	.16 Wildlife -	High quality
deer habitat (HSI=0.8) is outside of unit to the		
habitat (HSI=1.0) occurs S and W. Avoid expansion	on into these areas.	

Forest Plan: VCU 231 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect thin soils on upper slopes. Protect fisheries in Class 1 stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Shallow soils and large diameter trees with associated large crowns make blowdown likely if partial cutting applied. Clearcut with reserve trees will minimize the occurrence of potentially adverse impacts from blowdown (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments:	Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to	regenerate naturally over most of the unit; spruce
will likely regenerate on	lower slopes/alluvial areas. Areas of heavy surface
rock and portions of allu-	vial area will likely be difficult to regenerate.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit or along TTRA buffer. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments:_	No treatments planned at	this time.

spur roads will be closed, waterbarred, and grass-seeded after		
Logging System: Designed for running skyline, shovel, and downhold Require directional felling and split yarding away from v-noted Directionally fell away from Class I stream buffer.		ghlead.
Unit Boundary: Check for unmapped rearing/spawning channels during boundary to protect any unmapped channels.	ing la	yout. Adjust
Streamside Management: Minimum 100 ft. buffer on Class I streaming/spawning habitat in buffer layout.	am. I	nclude all
Wildlife Management: High quality deer habitat (HSI=0.8) is out: the west. High quality brown bear habitat (HSI=1.0) occurs S as Avoid expansion into these areas.		
Reserve Trees: 2 snags per acre left for wildlife and structure.  Refer to marking quide for instructions for marking.  Erosion Control: To the extent possible, minimize soil disturb		
slopes. Maintain Rd. 75617 (culverts, ditches). Close, waterbetemporary roads after use.  Fuel Treatment: None prescribed.	ar, an	d grass-seed
Planting: None prescribed. Possibility for planting to be need	ded in	shovel
settings if heavily disturbed due to presence of salmonberry/a Animal Damage Control: None prescribed.		
Vegetation Management: Monitor lower slopes (area shovel yard ment of salmonberry and alder.	ed) fo	r develop-
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.	_	
Final Harvest: Evaluate for harvest in 95-100 years after har	vest.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest Certification of natural regeneration 4-6 years after harvest		RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring Monitor TTRA buffer for effectiveness and windfirmness		RD Silv. Fish/Hydro
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Milliam Couldan Date: 08 Certified Silvigulturist	/01 /	92_

# UNIT # 2440 of the SE Chichagof Timber Sale

STAND #13,48,50,52,207 VCU 232 MANAGEMENT AREA C34

ACRES 80 Determined How: GIS By Whom: T.1	Falkner Date: 1991
Aerial Photo: Year 1986 Flight Line 29 Photo #'s Scale: 1:12000	1184-31
1/4 Quad ID: SITC5NE	
SITE CHARACTERISTICS:	
Elevation: 100 to 800 ft. Aspect: SE to S  Landform: Broken mountainslopes and frequently dissected foots	
Slope Configuration: Valley bottom/convex Site : Plant Association: Western hemlock/blueberry and western hemlockbage.	
Soil: SMU = 3645C, 5256B	
Parent Material: Colluvium/ablation till	
Soil Depth: (cm) 150 Soil Texture: Loam to gravelly silt	t loam.
Potential of Mass Failure: Low	
STAND CHARACTERISTICS:	
Stand Examination: Type None	Date / /
Stand History: Wind processes appear to be the major stand dev	
Potential Windthrow Hazard: Low to moderate	
Damaging Agents: Low defect and decay in most areas. In some	areas, pini,
pinicola and cedar butt rott are common.	
Species Composition (trees 5+" DBH): 35-55 %WH 15-40 %MH 30- Stand Structure: Uneven aged. Primarily hemlock with spruce	. High percent cedar
throughout unit. Some old blowdown. Large DBH trees in mos	st of unit. One area
has smaller DBH trees with lots of poles.	. 1501
Ave. Height: ft. Basal Area: sq.ft. Ave. Age Ave. DBH (trees 5+" DBH): 25 in. Ave. TPA (trees 5+" DBH):	
Ground Cover: 60%-70% blueberry. <10% devil's club and rus	sty menziesia.
<5% Sitka alder, salmonberry, stink current and copperbush.	
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 29	
Volume by Species: HMBF ACMBF SSI	MBF
SUMMARY OF OTHER RESOURCES AND VALUES:	
Soils - Ensure adequate stream buffers and recommend partial	suspension over wet
areas in settings 8 and 9. Recommend split yarding on v-not	
Fisheries - Small rearing channels may lie in east part of un	
layout. BMP 12.6.	
Hydrology - Several C.III streams within unit. Protect streams	am channels, reduce
erosion. Split yard v-notches. BMPS 13.9, 13.11, 13.16.	
Cultural - Unit within high probability zone. Survey is unde	erway. Unit will be

cleared before harvest begins.

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect streams within and adjacent to unit.

Alternatives Considered: Regeneration harvest considered are clearcut with reserve trees and partial cut. Partial cut deemed infeasible due to likelihood of blowdown associated with opening up stand as well as the need to encourage regeneration of spruce on lower slopes. Clearcut with reserve trees will minimize adverse impacts of windthrow as well as encourage establishment and growth of desirable trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit; spruce will be a major component on lower slopes adjacent to streams. Localized wetter areas will likely take longer to reach adequate stocking.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along backline, sides of unit and along TTRA buffers to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	No treatments	planned at	this time.	

#### INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Accessed on the east side by Rd. #7561, on the south by Rd. #75612 and temporary spurs off of Rd. #75612. Temporary spur roads will be closed, waterbarred, and grass-seeded after harvest.

Logging System: Designed for running skyline and slackline. Require directional felling and yarding away from v-notches. Require partial suspension in settings 8 and 9. Require directional felling away from Class II stream buffer.

Unit Boundary: Incorporate TTRA buffers into unit boundary. Provide for windfirmness.

Streamside Management: Ensure adequate stream buffers. Class 3 streams located within unit, as well as several v-notches. Split yard v-notches.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Partial suspension in settings 8/9. Protect v-notches and buffers. Maintain drainage (culverts, ditches) on Rds. 7561, 75612. Close, waterbar, and grass-seed temporary roads.

Fuel Treatment: None prescribed.

Planting: None prescribed. Monitor regen. on lower slopes carefully due to possibility of salmonberry/alder developement if heavily disturbed.

Animal Damage Control: None prescribed.

Vegetation Management: Monitor development of salmonberry and alder on alluvial areas and lower slopes.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness and windfirmness		Fish/Hyrdo.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified Silviculturist

Date: 08 /01 /92

UNIT # 2450 of the SE Chichagof Timber Sale STAND #59, 69 VCU 232 MANAGEMENT AREA C34 ACRES 33 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-32 Scale: 1:12000 1/4 Quad ID: SITC5NW SITE CHARACTERISTICS: Elevation: 350 to 800 ft. Aspect: NE to SE Slope: 15 to 70 % Landform: Smooth, frequently dissected footslopes and mountainslopes. Slope Configuration: convex/valley bottom Site Index (Farr): 88 Plant Association: Mixed conifer/blueberry Soil: SMU = 3257D, 5220B. Parent Material: Colluvium/residuum. Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam. Potential of Mass Failure: Low to moderate. STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 07/05/91 Stand History: Wind/small slumps appear to be the major stand development process Potential Windthrow Hazard: Low. Damaging Agents: Weather-related damage common. Rots scattered throughout unit. No evidence of mistletoe. Species Composition (trees 5+" DBH): 74 %WH 8 %MH 18 %AC 0 %SS Stand Structure: Uneven aged. Mid to uppper slopes, trees are short for DBH. In some areas there are a lot of canopy gaps. Moderate to low stocking of saps, poles and seedlings due to brush. Ave. Height: 87 ft. Basal Area: 380 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 15 in. Ave. TPA (trees 5+" DBH): 335 Ground Cover: 60%-80% blueberry; <10% Rusty menziesia and devil's club. <5% salmonberry. Total Net Sawlog Vol/Acre: 41.8 MBF Total Unit Vol: 1673 MBF Volume by Species: H 21.4 MBF AC 20.4 MBF SS 0 MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend full suspension over v-notches that can't be split yarded. Partial suspension on steep slopes along backline and over rest of unit to protect wet soils along bottom of unit. Hydrology - Maintain unit boundary to slope break of v-notch (C.III) channel in SW part of unit. BMP 13.16. Fisheries, Wildlife: No concerns.

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect fisheries resource in Class 1 stream adjacent to unit. Protect soil resource.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. General poor health of overstory and the presence of heavy brush which precludes regeneration makes partial cut infeasible. Clearcut with reserve trees will minimize potential adverse impacts of poor forest health and will provide for establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

# MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut followed by artificial regeneration. Hemlock
will naturally regenerate over most of unit. Plant cedar and spruce to ensure
species diversity. Localized wet areas on alluvial sites are anticipated to be
more difficult to regenerate.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is spruce/cedar; hemlock is least
desirable for snag retention. Clump/group snags along backline, sides of unit
and along buffers to maximize retention. If inadequate snags exist, mark green
trees for retention to serve as recruitment trees for snags. Utilize live cull
to the extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

## INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Accessed by Rd.#75612 and temporary spur roads off of Rd.# 75612. Temporary spur roads will be closed, waterbarred, and grass-seeded after harvest.

Logging System: Designed for slackline and shovel. Require directional felling and split yarding away from v-notches. Require directional felling away from Class II stream buffers. Require partial suspension for entire unit due to high hazard soils.

Unit Boundary: Incorporate buffer designs into unit boundary. Layout windfirm boundary.

Streamside Management: Minimum 100 ft. TTRA buffers along streams. Maintain unit boundary to slope break of v-notch channel in SW part of unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Partial suspension required to protect soils. Maintain Rd. 75612 (culverts, ditches). Close, waterbar, and grass-seed spur roads post-use. Fuel Treatment: None prescribed.

Planting: Plant entire unit with spruce and cedar. Plant spruce in shovel area (setting 3); plant cedar in remainder of unit. Plant spruce 12 x 12; plant cedar 20 x 20 ft.

Animal Damage Control: None prescribed.

Vegetation Management: Monitor development of alder and salmonberry in shovel area if heavy disturbance occurs.

Precommercial Thinning: Evaluate for PCT 12-14 years after harvest. Base need for PCT on results of exam.

Commercial Thinning: Possibility for commercial thinning due to high site productivity. Stand exam 55-60 years following harvest to evaluate.

Final Harvest: Evaluate for harvest 95-100 years following harvest.

## MONITORING PLAN:

Activity and Date	Fund	Who
Plant unit with spruce/cedar following harvest	KV	RD Silv.
Installation of survival transects during planting operation	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural		
regen. during 3 year exam	KV	RD Silv.
Check for blowdown annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Road maintenance (culverts, ditches, etc.)		RD Roads
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

Date: <u>08 /01 /92</u>

Certified Silvifulturist

UNIT # 2451 of the SE Chichagof Timber Sale STAND # 70 VCU 232 MANAGEMENT AREA C34 ACRES 19 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-32 Scale: 1:12000 1/4 Quad ID: SITC5NW SITE CHARACTERISTICS: Elevation: 350 to 1160 ft. Aspect: NE to SE Slope: 15 to 70 % Landform: Smooth, frequently and infrequently dissected mountainslopes. Slope Configuration: Convex/valley bottom. Site Index (Farr): 74 Plant Association: Mixed conifer/blueberry Soil: SMU = 3257D, 3594CParent Material: Colluvium/residuum/organic. Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam to mucky peat. Potential of Mass Failure: Low to moderate. STAND CHARACTERISTICS: Stand Examination: R6 Quick Plot Type 11 Date 07/05/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low Damaging Agents: Moderate amount of broken/dead tops. Rots (pini and chicken of the woods) prevalent. Mistletoe was not observed Species Composition (trees 5+" DBH): 74 %WH 8 %MH 18 %AC 0 %SS Stand Structure: Uneven aged. Mid to upper slopes the trees are short for DBH. Scattered hemlock/cedar saps, with low stocking. Seedlings sparse, primarily\_\_\_\_ due to heavy brush. Ave. Height: 87 ft. Basal Area: 380 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 15 in. Ave. TPA (trees 5+" DBH): 335 Ground Cover: 60%-80% blueberry; <10% rusty menziesia and devil's club. <5% salmonberry. Total Net Sawlog Vol/Acre: 36.8 MBF Total Unit Vol: 843 MBF Volume by Species: H <u>12.8 MBF</u> AC <u>24.0 MBF</u> SS <u>0 MBF</u> SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Ensure that boundary is above slope breaks of large v-notches; Recommend at least partial suspension due to unstable and steep slopes - prefer full suspension. Fisheries, Hydrology, Wildlife: No concerns.

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource on steeper, unstable slopes. Protect v-notches and Class 3 stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory makes partial cut infeasible. Clearcut with reserve trees will minimize the occurrence of potentially adverse impacts of disease infestations affecting forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut followed by artificial and natural regenera-
tion. Hemlock is anticipated to regenerate naturally over most of unit; some of
the more wet sites on steeper slopes will likely be more difficult to regener-
ate. Plant cedar at wide spacing to ensure species diversity.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar; hemlock is least desir-
able for snag retention. Clump/group snags along backline or sides of unit to
maximize retention during yarding. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

# INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Accessed by a temporary spur road off Rd	.#75612	2.	
Temporary spur road will be closed, waterbarred, and grass-seed	ded aft	er	
harvest.			
Logging System: Designed for slackline. Require directional fe	llinga	and split	
yarding away from v-notches. Require, at a minimum, partial su	uspensi	on over	
entire unit due to high hazard soils.			
Unit Boundary: Ensure that boundary is above slope breaks of la	arge v-	-notches.	
Streamside Management: Class 3 stream adjacent to unit on north	h bound	dary.	
•			
Wildlife Managements Coo Degayyo Typog			
Wildlife Management: See Reserve Trees.	· · · · · · · · · · · · · · · · · · ·		
Reserve Trees: 2 snags per acre left for wildlife and structura	al dive	ersity.	
Refer to marking quide for instructions for marking.			
Erosion Control: Partial suspension over unit to minimize soi	l dist	irbance.	
Close, waterbar, and grass-seed spur roads. Split-yard v-note			
Fuel Treatment: None prescribed.			
Planting: Plant entire unit with cedar following harvest. Planting:	nt at 2	20 x 20 ft.	
spacing.			
Animal Damage Control: None prescribed.			
Vegetation Management: Monitor salmonberry development on lower	r slope	es, partic-	
ularly if heavily disturbed during yarding.			
Precommercial Thinning: None prescribed nor anticipated.			
Commercial Thinning: None prescribed nor anticipated.			
Final Harvest: Evaluate for harvest in 100-105 years following	g harve	est.	
MONITORING PLAN:			
Park land have a seed Park a	l =a	F.31	
Activity and Date	Fund	Who	
Plant unit with cedar, 20 x 20 spacing, following harvest	KV	RD Silv.	
Survival exams, 1 and 3 years after planting; evaluate natural	10	RD Silv.	
_regen. during 3 year exam	KV	RD Silv.	
	3 V V	110 0114	

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: Milliam Confidence Certified Silviculturist

Date: <u>08 /01 /92</u>

KV

Check for blowdown timber annually each spring

Certification of regeneration 3-4 years after harvest

RD Silv.

RD Silv.

UNIT # 2470 Of the <u>SE Chichagol</u> Timber Sale
STAND #_91,96,97
ACRES 33 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1986 Flight Line 29 Photo #'s 1184-32 Scale: 1:12000 1/4 Quad ID: SITC5NW
SITE CHARACTERISTICS:
Elevation: 350 to 900 ft. Aspect: W to NW Slope: 20 to 80 Standform: Broken mountainslopes and gently sloping lowlands.  Slope Configuration: Valley bottom/convex. Site Index (Farr): 78  Plant Association: Mixed Conifer/skunk cabbage/lady fern and mixed conifer/blueberry.  Soil: SMU = 3625D, 6174B  Parent Material: Colluvium/residuum/organic.  Soil Depth: (cm) 150 Soil Texture: Peat to gravelly silt loam.  Potential of Mass Failure: Low
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 07/05/99 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low Damaging Agents: Fairly healthy stand. In some areas dead/dying tops, forking, and some pini conks.
Species Composition (trees 5+" DBH): 40 %WH 52 %MH 0 %AC 8 %SS Stand Structure: Uneven aged. Fairly open mixed conifer stand. Scattered larger DBH trees, with majority 16"-26" range. Saps/poles scattered through understory, some areas with poor understory vigor and form.  Ave. Height: 87 ft. Basal Area: 240 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 233  Ground Cover: 50% blueberry; <10% devil's club, salmonberry and skunk cabbage.
Total Net Sawlog Vol/Acre: 31.8 MBF Total Unit Vol: 1043 MBF Volume by Species: H 27.2 MBF AC 0 MBF SS 4.6 MBF  SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend partial suspension on steep slopes and full suspension on
slopes >75%. Split yard on v-notches where possible - otherwise full suspension across them. Fisheries - no concerns. Hydrology - no concerns.
Wildlife - No concerns.

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Requerate stand resulting in a vigorous new stand. Provide for structural diversity through retention of snags, large down woody material and groups of residual trees. Minimize soil disturbance over unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut retaining groups of trees between skyline roads is feasible in setting 1. Remainder of unit has stand structure and health as well as logging system configuration which is not amenable to retaining groups of trees. Clearcut with reserve trees will be employed in this area to minimize potentially adverse impacts of logging damage on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Setting 1: ITM small groups of trees between skyline roads. Clearcut remainder. Settings 2-4: Clearcut followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar and spruce will regenerate in smaller quantities, but are anticipated to be a component of the regeneration.

Marking Guide: Setting 1 (9 acres): ITM small groups (approx. 0.5 acre in size) such that about 6 groups are marked. Orient groups between skyline roads, shaped such that they resemble the "fan" shape between roads. Objective is to provide islands of diversity and structure in this setting. For remainder of unit, designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

# INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Access to this unit requires crossing a			
on road 756121 prior to the temporary spur road that accesses			
temporary spur road will be closed, waterbarred, and grass-see		er	
harvest. Class II stream crossing will not impede fish passage			
Logging System: Designed for running skyline and highlead. Requ			
suspension over entire unit, at a minimum. Delineate groups o			in_
in setting 1, take measures to protect (designate corridors, r	equire	lateral	
capability, directional felling).			
Unit Boundary: Incorporate reserve groups into boundary layout	. Prov	vide wind	=
firm boundaries.			
Streamside Management: No concerns with fisheries or hydrology	• • • • •		
Wildlife Management: See Reserve Trees.		<del> </del>	
Reserve Trees: In setting 1, leave groups of trees within setti	na Ti	2 2441+101	
leave 2 snags per acre for wildlife/diversity. Refer to Marki			11,
Erosion Control: Close, waterbar, and grass-seed temporary sp		<u></u>	
Elosion Concrot: Close, waterbar, and grass-seed temporary sp	ur.		
Fuel Treatment: None prescribed.			
Planting: None prescribed.			
Animal Damage Control: None prescribed.			
Vegetation Management: None prescribed nor anticipated.			
Precommercial Thinning: None prescribed nor anticipated.			_
Commercial Thinning: None prescribed nor anticipated.			—
commercial iniming. None prescribed not ancicipated.			
Final Harvest: Evaluate for harvest in 95-100 years following	harvest		
MONITORING PLAN:			
Activity and Date	Fund	Who	
Natural regeneration exam 4-5 years after harvest	KV	RD Silv	•
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv	
Monitor windfirmness of groups left in setting 1	KV	RD Silv	<u>.                                    </u>
Check for blowdown timber annually each spring		RD Silv	<u></u>
Prepared By: <u>William R. Dougan</u> Date: <u>08</u>	/01 /9	92_	

Certified Silvigulturist

Date: <u>08 /01 /92</u>

UNIT # 2480 of the SE Chichagof Timber Sale STAND #24, 251 VCU 232 MANAGEMENT AREA C34 ACRES 79 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1989 Flight Line\_31B Photo #'s\_2384-160\_ Scale: 1:12000 1/4 Quad ID: SITC5NE SITE CHARACTERISTICS: Elevation: 200 to 1000 ft. Aspect: NW to SE Slope: 20 to 60 % Landform: Smooth, frequently and infrequently dissected mountainslopes. Slope Configuration: Valley bottom. Site Index (Farr): 83 Plant Association: Mixed conifer/blueberry and western hemlock/blueberry. Soil: SMU = 3562D, 3225EParent Material: Colluvium/residuum. Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam to gravelly silt loam. Potential of Mass Failure: Low to moderate. STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents: Stand 24 has a lot of weather damage and decay (pini) present. Stand 251 has less damage, but does have scattered blowdown. Species Composition (trees 5+" DBH): <u>25-60 %WH \_ 5 %MH 30-65 %AC \_ 5 %SS</u> Stand Structure: <u>Uneven aged.</u> Stand 24 - scrubby timber with small diameters. Stand 251- Large diameter trees. In entire unit there are scattered poles and seedlings, with low stocking due to brush cover. Ave. Height: 80-95 ft. Basal Area: 280 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH):16-18in. Ave. TPA (trees 5+" DBH):170-250 Ground Cover: 60%-80% blueberry; 20%-30% rusty menziesia. Total Net Sawlog Vol/Acre: 65.9 MBF Total Unit Vol: 3282 MBF Volume by Species: H 24.6 MBF AC 7.1 MBF SS 34.2 MBF SUMMARY OF OTHER RESOURCES AND VALUES: Wildlife - No concerns. Soils - Recommend full suspension over v-notches in settings 7 and 8. Split yard on notch along N.E. side of these settings. Ensure lower boundary is above slope break in settings 5 and 7. Fisheries - Maintain unit boundary to protect C. I/II stream. BMP 12.6.

Hydro. - West half of unit is high mass wasting hazard. Maintain designed unit

boundaries, employ erosion prevention measures. BMPs 13.11, 13.16.

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to the APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soils resource. Protect fisheries resource along stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of the overstory and the likelihood of blowdown preclude the option of partial cut. Clearcut with reserve trees will minimize potentially adverse impacts of blowdown and disease on forest health as well as provide for establishment and growth of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

# MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration and artificial regeneration. Hemlock will regenerate naturally over most of unit, particularly on upper slopes. Spruce will regenerate primarily on lower slopes adjacent to stream. To ensure presence of cedar, plant cedar at wide spacing over entire unit.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit, or along TTRA buffer to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock.

	NO CLEACMENTS	 	

Road will be closed, waterbarred, and grass-seeded following ha		
Logging System: Designed for running skyline uphill, slackline a downhill. Require partial suspension for settings 5-8 (high has suspension over v-notches in settings 7 and 8. Directional fectlass I and II buffers.  Unit Boundary: Ensure lower boundary is above slope break in section Incorporate TTRA buffer into unit boundary layout.  Streamside Management: Maintain designed buffer to protect Class and reduce erosion and sediment delivery to Class II stream.	zard ll aw	soils); full ay from s 5 and 7.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structura Refer to marking guide for instructions for marking.  Erosion Control: Partial suspension over high hazard soils areas waterbar, and grass-seed temporary road. Maintain TTRA buffer t sediment/erosion to streams.  Fuel Treatment: None prescribed.	. Cl	ose,
Planting: Plant entire unit with cedar following harvest. Plan spacing. Animal Damage Control: None prescribed.	it 20	x 20 ft.
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 100-105 years following	harve	st.
MONITORING PLAN:  Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Monitor TTRA buffer for windfirmness and effectiveness  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. Fish/Hydro RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /	92_

UNIT # 2570 of the SE Chichagof Timber Sale

	STAND # 5,6,1	1 VCU <u>232</u>	MANAGEMENT AREA <u>C34</u>	_
ACRES 1	04 Determine	d How: GIS	By Whom: T.Falkner	Date: 1991
Scale: 1		Flight Line 31B	Photo #'s_2384-158	3
SITE CHA	RACTERISTICS:			
Landform Slope Co	:Broken mountain	slopes and infrequen	Slope: Slope: Slope: Site Index (I	S.
Parent M Soil Dep		m/residuum/ablation	till over compact till. to silt loam.	
STAND CH	IARACTERISTICS:			
Stand Hi Potentia	story: <u>Wind proce</u> al Windthrow Haza	esses appear to be the	pe 11 Date major stand development of weather damage, and de	nt influence
Stand St	ructure: <u>Uneven</u> a	aged. Widely spaced	WH 30 %MH 10 %AC smaller diameter trees of es. Saps/poles in open	on upper
Ave. Hei	ight: <u>81 ft.</u> H (trees 5+" DBH)		•	
Volume h	by Species: H 15	5.2 MBF AC 3.1 M		BF
Wildlife		deer and brown bear	habitat is locted to the	
	Avoid expansion of at southeast corr		area. Provide for 100	0' estuary
Recreat:	ion - do not exte and east sides o	end unit toward estua	ry. Hydrology - Class undaries to slope break	
Cultura	s. BMP 13.16.  l - Unit within hefore harvest	nigh probability zone	. Survey is underway.	Unit will be

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect stream channels and buffers along unit boundary.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Overstory decadence and poor vigor precludes considering partial cut as a viable option. Clearcut with reserve trees will minimize adverse impacts to forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

# MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of unit. Spruce will be a minor component on lower slopes closer to streams. Plant cedar at wide spacing over about half of unit to ensure species diversity in regenerating stand.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.		

## INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Rd.#7561 traverses across the north side of the unit then drops diaginally through the unit and intersects with Rd.#75613 near the bottom of the unit. Road grade through the unit runs 10%-15%.

Logging System: Designed for running skyline and highlead. Require directional felling away from and split yard v-notches; fell away from Class I stream buffer.

Unit Boundary: Locate boundary along slope break to Class III channels on east and west side of unit. Incorporate TTRA buffer into unit boundary on west side.

Streamside Management: Class III channels adjacent to unit on east and west.

Protect v-notches in unit during yarding.

Wildlife Management: High quality deer, brown bear habitat located south of unit. Avoid expansion into this area. Provide for 1000 ft. estuary buffer at southeast corner.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Maintain drainage (culverts, ditches) on road through unit.

Protect stream channels within/adjacent to unit.

Fuel Treatment: None prescribed.

Planting: Plant approx. 50 acres with cedar following harvest. Plant upper half of unit at 20 x 20 spacing.

Animal Damage Control: None prescribed.

Vegetation Management: Monitor development of red alder in lower part of unit.

If yarding disturbs soil, anticipate proliferation of alder in this area.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest 100-105 years after harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Plant upper half of unit (~50 acres) with cedar, 20 x 20 ft.	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen.		
exam included in 3rd year; monitor alder development	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By:

Certified Silviculturist

Date: 08 /01 /92

UNIT # 2580 of the SE Chichagof Timber Sale

Sale: 1:12000 1/4 Quad ID: SITCSNE  SITE CHARACTERISTICS:  Elevation: 350 to 900 ft. Aspect: NW Slope: 45 to 70 % Landform: Smooth, frequently dissected mountainslopes. Slope Configuration: Valley bottom. Site Index (Farr): 63 Plant Association: Mixed conifer/blueberry and Mountain hemlock/blueberry  Soil: SMU = 3247C Parent Material: Colluvium or ablation till Soil Depth: (cm) 150 Soil Texture: Mucky silt loam. Potential of Mass Failure: Low to moderate.  STAND CHARACTERISTICS:  Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Pini and pinicola sighted. Dead/dying tops scattered. Little blowdown and wind damage. Some severe stem decay and minor forks/sweeps.  Species Composition (trees 5+" DBH): 75 %WH 5-15 %WH 6 %AC 5-15%SS Stand Structure: Uneven aged. Decadent stand. Overstory is beginning to break up. Scattered poles/saps confined mostly to canopy gaps.  Ave. Height: 80-100ft. Basal Area: 320 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180 Ground Cover: 70%-80% blueberry: <5% rusty menziesia and salmonberry.  Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES: SOILs - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.					
Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Valley bottom.  Plant Association: Mixed conifer/blueberry and Mountain hemlock/blueberry  Soil: SMU = 3247C  Parent Material: Colluvium or ablation till  Soil Depth: (cm) 150	ACRES 55	Determined How	v:_GIS	By Whom: T.Fa	lkner Date: 1991
Elevation: 350 to 900 ft. Aspect: NW Slope: 45 to 70 % Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Valley bottom. Site Index (Farr): 63 Plant Association: Mixed conifer/blueberry and Mountain hemlock/blueberry  Soil: SMU = 3247C Parent Material: Colluvium or ablation till  Soil Depth: (cm) 150 Soil Texture: Mucky silt loam.  Potential of Mass Failure: Low to moderate.  STAND CHARACTERISTICS:  Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91  Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Pini and pinicola sighted. Dead/dying tops scattered. Little blowdown and wind damage. Some severe stem decay and minor forks/sweeps.  Species Composition (trees 5+" DBH): 75 %WH 5-15 %WH 6 %AC 5-15%SS Stand Structure: Uneven aged. Decadent stand. Overstory is beginning to break up. Scattered poles/saps confined mostly to canopy gaps.  Ave. Height: 80-100ft. Basal Area; 320 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180 Ground Cover: 70%-80% blueberry; <5% rusty menziesia and salmonberry.  Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting designed buffer along boundary. BMPs 13.11, 13.16.	Scale: 1:12000		Flight Line <u>31B</u>	Photo #'s <u>2</u>	384-161
Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Valley bottom. Site Index (Farr): 63  Plant Association: Mixed conifer/blueberry and Mountain hemlock/blueberry  Soil: SMU = 3247C  Parent Material: Colluvium or ablation till  Soil Depth: (cm) 150 Soil Texture: Mucky silt loam.  Potential of Mass Failure: Low to moderate.  STAND CHARACTERISTICS:  STAND CHARACTERISTICS:  Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91  Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Pini and pinicola sighted. Dead/dying tops scattered. Little blowdown and wind damage. Some severe stem decay and minor forks/sweeps.  Species Composition (trees 5+" DBH): 75 %WH 5-15 %WH 6 %AC 5-15%SS Stand Structure: Uneven aged. Decadent stand. Overstory is beginning to break up. Scattered poles/saps confined mostly to canopy gaps.  Ave. Height: 80-100ft. Basal Area: 320 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180 Ground Cover: 70%-80% blueberry; <5% rusty menziesia and salmonberry.  Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF Volume by Species: H 25:7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPS 13.11, 13.16.	SITE CHARACTERI	STICS:			
Parent Material: Colluvium or ablation till  Soil Depth: (cm) 150	Landform: <u>Smooth</u> Slope Configura	,frequently dition: Valley b	ssected mountains	lopes. Site Ind	dex (Farr): 63
Parent Material: Colluvium or ablation till  Soil Depth: (cm) 150	Soil: SMU = 324	7C			
Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Pini and pinicola sighted. Dead/dying tops scattered. Little blowdown and wind damage. Some severe stem decay and minor forks/sweeps.  Species Composition (trees 5+" DBH): 75 %WH 5-15 %MH 6 %AC 5-15%SS Stand Structure: Uneven aged. Decadent stand. Overstory is beginning to break up. Scattered poles/saps confined mostly to canopy gaps.  Ave. Height: 80-100ft. Basal Area: 320 gq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180 Ground Cover: 70%-80% blueberry; <5% rusty menziesia and salmonberry.  Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.	Parent Material Soil Depth:(cm)	: Colluvium or 150 Soi	ll Texture: Mucky	silt loam.	
Stand Examination: Type R6 Quick Plot Type 11 Date 07/03/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Pini and pinicola sighted. Dead/dying tops scattered. Little blowdown and wind damage. Some severe stem decay and minor forks/sweeps.  Species Composition (trees 5+" DBH): 75 %WH 5-15 %MH 6 %AC 5-15%SS Stand Structure: Uneven aged. Decadent stand. Overstory is beginning to break up. Scattered poles/saps confined mostly to canopy gaps.  Ave. Height: 80-100ft. Basal Area: 320 gq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180 Ground Cover: 70%-80% blueberry; <5% rusty menziesia and salmonberry.  Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.	STAND CHARACTER	ISTICS:			
SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.	Stand History: <u>W</u> Potential Windt Damaging Agents	ind processes hrow Hazard: I : Pini and pir	appear to be the Low to moderate.	major stand deve	lopment influence
Ave. DBH (trees 5+" DBH): 20 in. Ave. TPA (trees 5+" DBH): 140-180  Ground Cover: 70%-80% blueberry; <5% rusty menziesia and salmonberry.  Total Net Sawlog Vol/Acre: 39.3 MBF Total Unit Vol: 2598 MBF  Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.	Stand Structure	: Uneven aged.	Decadent stand.	Overstory is be	
Volume by Species: H 25.7 MBF AC 9.2 MBF SS 4.4 MBF  SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.	Ave. DBH (trees	5+" DBH): 20	o in. Ave. TPA (t	rees 5+" DBH): <u>14</u>	0-180
Soils - Recommend full suspension wherever possible above 600' contour and partial suspension as a minimum due to highly dissected, occasionally shallow soils Partial suspension over rest of unit. Hydrology - Unit in high mass wasting hazard area. Reduce erosion/sediment delivery to Class II channel. Maintain designed buffer along boundary. BMPs 13.11, 13.16.					
Fisheries, Wildlife - No concerns.	Soils - Recomme tial suspension Partial suspens hazard area. Re designed buffer	end full susper as a minimum sion over rest educe erosion/s along boundar	nsion wherever positive to highly distributed of unit. Hydrological sediment delivery by. BMPs 13.11, 1	sected, occasion ogy - Unit in high to Class II chan	ally shallow soils h mass wasting

Forest Plan: VCU 232 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect v-notches within unit and fisheries resource in Class II stream adjacent to unit. Protect soil resource.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and high incidence of defect precludes partial cut. Clearcut with reserve trees will minimize adverse impacts of disease and windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit, with spruce and cedar being minor components in the regenerating stand. Spruce will likely stock area along stream buffers, with cedar regenerating on upper slopes of unit. Localized wet areas will likely be more difficult to regenerate.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and along TTRA buffers to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments: No	treatments	planned at	this ti	ime.	

Trans	spoi	ctati	ion S	ystem:	_A_	25	to	30	foot	bride	ge (	cross	sing	is 1	Located	on the we	est
																through	
				p to 1													

Logging System: Designed for running skyline and slackline. Require directional felling and yarding away from v-notches and Class I and II stream buffers.

Require partial suspension for all unit (high hazard soils); Full suspension over v-notches.

Unit Boundary: Incorporate TTRA buffers into boundary layout. Layout boundary for windfirmness.

Streamside Management: Class I and II streams are adjacent to unit. Layout TTRA buffers to protect channels.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Prevention measures to prevent sediment delivery to streams. BMP 13.11, 13.16. Maintain drainage on roads, Close, waterbar, and grass-seed spurs. Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: \_\_\_\_\_\_ Dat
Certified Silviculturist

Date: 08 /01 /92

UNIT # 2650 of the SE Chichagof Timber Sale

STAND # 39, 251 VCU 232	MANAGEMENT AREA C34
ACRES 70 Determined How: GIS	By Whom: T. Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>31B</u> Scale: 1:12000 1/4 Quad ID: <u>SITC5NE</u>	_ Photo #"s_2384-160
SITE CHARACTERISTICS:	
Elevation: 300 to 1000 ft. Aspect: SE  Landform: Smooth, infrequently dissected mountain  Slope Configuration: Valley bottom.	slopes.
Plant Association: <u>Mixed Conifer/blueberry</u>	
Soil: SMU = 3551D, 3547C  Parent Material: Colluvium/residuum  Soil Depth: (cm) 25-40&150 Soil Texture: Mucky to  Potential of Mass Failure: Low	gravelly silt loam.
STAND CHARACTERISTICS:	
Stand Examination: Type R6 Quick Plot Type 11 Stand History: Wind processes appear to be the m Potential Windthrow Hazard: Low to moderate. Damaging Agents: Pini conks common; little weath sweeps, checks and cracks common in some areas.	ajor stand development influence er damage; forks, crooks,
Species Composition (trees 5+" DBH): <u>84 %WH</u> Stand Structure: <u>Uneven aged. Larger hemlocks wi</u> fairly sparse and unevenly distributed due to h	th scattered spruce. Understory
Ave. Height: 102 ft. Basal Area: 280 sq.ft Ave. DBH (trees 5+" DBH): 19 in. Ave. TPA (tre Ground Cover: 50%-70% blueberry; 5%-10% devil's	es 5+" DBH): <u>140-170</u>
Total Net Sawlog Vol/Acre: 35.0 MBF Total Volume by Species: H 28.6 MBF AC 4.4 MBF	Unit Vol: 2976 MBF SS 2.0 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:	
Fisheries - No concerns. Hydrology - No concern Wildlife - No conerns.	S.
Soils - Recommend at least partial suspension es to protect steep slopes.	pecially in upper third of unit

Forest Plan: VCU 232 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect v-notch channels within unit and Class II stream below unit boundary.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and the need to get sufficient disturbance for adequate regeneration make partial cut infeasible.

Clearcut with reserve trees will minimize potentially adverse impacts to forest health and will provide for the establishment of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Disturbance during yarding will be required to break up brush continuity and create sites for regeneration. Hemlock is anticipated to regenerate over most of unit, with cedar as a minor component on upper slopes and spruce confined primarilyto the lower portion of unit.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	No treatments	s planned at	t this t	time.	

Page  $\underline{3}$  of  $\underline{3}$ 

the unit will be closed, waterbarred, and grass-seeded after ha		
Logging System: Designed for slackline and running skyline. Log 1350 ft EYD). Require directional felling away from and split Require directional felling away from Class II stream buffer.		
Unit Boundary: Layout boundary for windfirmness.		
Streamside Management: Split yard v-notches in unit. Protect unit.	rtra bi	uffer below
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure.  Refer to marking quide for instructions for marking.  Erosion Control: Maintain drainage on Rd. 75611 (culverts, dite waterbar, and grass-seed temporary roads after harvest.  Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest		
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural reqeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
		•
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Millian Cought Date: 08	/01 /	92_

UNIT # 1973 of the SE Chichagof Timber Sale STAND # 63, 79 VCU 233 MANAGEMENT AREA C34 ACRES 48 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1989 Flight Line 33B Photo #'s 2384-136 Scale: 1:12000 1/4 Quad ID: SITC5NE SITE CHARACTERISTICS: Elevation: 100 to 1000 ft. Aspect: SE to S Slope: 10 to 70 % Landform: Smooth, frequently dissected mountainslopes and footslopes. Slope Configuration: Valley bottom/convex. Site Index (Farr): 63 Plant Association: Mountain hemlock/blueberry, Mixed conifer/blueberry and mixed conifer/skunk cabbage. Soil: SMU = 5243B, 3243C, 3257DParent Material: Ablation till over compact till. Soil Depth: (cm) 150 Soil Texture: Silt loam to gravelly silt loam. Potential of Mass Failure: Moderate. STAND CHARACTERISTICS: Stand Examination: Type R6 Quick Plot Type 11 Date 06/23/91 Stand History: Wind/slide processes appear to be major stand development process Potential Windthrow Hazard: Low Damaging Agents: Some pini, pinicola, and missing/dead tops. No mistletoe seen. Species Composition (trees 5+" DBH): 21 %WH 55 %MH 19 %AC 5 %SS Stand Structure: Uneven aged. Upper slopes are decadent, with some scrub areas. Saps and poles are well distributed. Majority of hemlock unmanageable due to poor form/vigor. Cedar/spruce regen. looks good. Ave. Height: 74 ft. Basal Area: 213 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 13 in. Ave. TPA (trees 5+" DBH): 250 Ground Cover: 70% blueberry; <5% salmonberry; 5% skunk cabbage. Total Net Sawlog Vol/Acre: 20.9 MBF Total Unit Vol: 1219 MBF Volume by Species: H 8.4 MBF AC 9.0 MBF SS 3.5 MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Ensure NW boundary of setting 3 is above slope break of large v-notch. Recommend partial suspension to protect sensitive soils and minimize disturbance to wetlands that are blocked out of unit. Hydrology - West half of unit is high mass wasting are, with potential for sediment delivery to Class I stream. Suspension recommended. BMPS 13.9, 13.11 Fisheries, Wildlife - No concerns.

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and prevent sediment delivery to Class I stream below unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and poor form/vigor of hemlock in understory precludes use of partial cut. Clearcut with reserve trees will minimize adverse impacts affecting forest health and will provide for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4,1992)

# MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock will regenerate naturally over most of unit, with spruce and cedar expected to be minor components in new stand. Lower slopes have localized wet areas which will likely be more difficult to regenerate. Where feasible, it is desirable to protect spruce/cedar advanced regeneration.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and bottom of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments	NO E	reatments	s pranneo	at t	nis	cime.	 
								***

Transportation System: Unit accessed by road 7561.		
Logging System: Designed for live skyline, running skyline, and		
Require directional fell away from v-notch setting 3. Require		
suspension for entire unit. Directional fell, protect blocked	out mu	skeg areas,
minimize yarding through muskegs.		
Unit Boundary: Layout windfirm boundary. Protect muskegs by protect mu	covidir	ng boundary
to minimize disturbance during yarding.		
Streamside Management: Protect v-notch in setting 3. Class I s	stream	located
below unit.		
Wildlife Management: High quality deer, brown bear, and martin		
outside of unit. deer to the N.W. Bear to the S.E. Martin to	the V	V. and S.E.
Reserve Trees: 2 snags per acre left for wildlife and structure	ral div	versity.
Refer to marking quide for instructions for marking.		
Erosion Control: Partial suspension required. Maintain Rd. 750	51 (cu]	lverts,
ditches).		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Programmavaial Whinnings None progration now entireinsted		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years following	harvest	
MONTMODENG DE NA		
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
	L V	
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92_
no talle Ma		
Certified By: Date: 08	/01 /9	92
Certified Silviculturist		

UNIT # 1976 of the SE Chichagof Timber Sale
STAND # 63 VCU 233 MANAGEMENT AREA C34
ACRES 32 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1989 Flight Line 33B Photo #'s 2384-136 Scale: 1:12000 1/4 Quad ID: SITC5NE
SITE CHARACTERISTICS:
Elevation: 400 to 1200 ft. Aspect: SE to S Slope: 10 to 70  Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Valley bottom/convex Site Index (Farr): 77  Plant Association: Mountain hemlock/blueberry, mixed conifer/blueberry and mixe conifer/skunk cabbage.  Soil: (cm) SMU = 3257D, 3243C, 3247C  Parent Material: Colluvium/residuum/ablation till over compact till.  Soil Depth: 150 Soil Texture: Silt loam.  Potential of Mass Failure: Moderate.
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 06/23/9 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low Damaging Agents: Some Pini, pinicola, and missing/dead tops. Little disease. N sign of mistletoe.  Species Composition (trees 5+" DBH): 21 %WH 55 %MH 19 %AC 5 %SS Stand Structure: Uneven aged. Upper slopes are decadent with some scrub areas. Saps and poles are well distributed, but hemlock is of poor form/vigor.
Ave. Height: 74 ft. Basal Area: 213 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 13 in. Ave. TPA (trees 5+" DBH): 250  Ground Cover: 70% blueberry; <5% salmonberry; 5% skunk cabbage.
Total Net Sawlog Vol/Acre: 20.9 MBF Total Unit Vol: 813 MBF Volume by Species: H 8.4 MBF AC 9.0 MBF SS 3.5 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Recommend full suspension across any v-notches that aren't split yarde in setting 1. Fisheries - No concerns. Hydrology - Western half of unit is in high mass wasting hazard area. Some potential for sediment delivery to the Class I stream below unit. Log suspension recommended, employ erosion preven- tion measures. BMPs 13.9 and 13.11.  Wildlife - No concerns

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I stream below unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Decadence of overstory and poor vigor of understory make partial cut impractical. Clearcut with reserve trees will minimize adverse impacts of forest health and provide for establishment and growth of desirable trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest	followed by natural regeneration.
Hemlock is expected to regenerate over mo	est of unit; spruce and cedar will be
minor components of regenerating stand.	Lower slopes have localized wet areas
which may be more difficult to regenerate	

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, bottom or sides of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	No treatments	planned at	this time	e	

Transportation System: Road 7561 runs through unit.		
Logging System: Designed for slackline and running skyline. Requ		
suspension for entire unit due to high hazard soils; full suspension		
v-notches that can't be split yarded. Combine with unit 1971	if bot	h are
harvested.	1-	
Unit Boundary: Layout windfirm boundary. Large v-notch forms between units 1976 and 1977.	east b	oundary
Streamside Management: V-notches within unit require split yar	ding o	w full cus-
pension. Class I stream located below unit.	arng o	I lull sus-
pension: Class I stream located below unit:		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure	al div	ersitv.
Refer to marking quide for instructions for marking.		
Erosion Control: Maintain drainage on Rd. 7561 (culverts, ditc	hes).	Partial
suspension required to minimize soil displacement.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Wordshier Wordsmann, Name and the American and the Americ		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
None prescribed nor ancicipated.		
Commercial Thinning: None prescribed nor anticipated.		
<b>3</b>		
Final Harvest: Evaluate for harvest in 95-100 years following	harves	t.
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor v-notch along east boundary for ravelling		Fish/Hydro
Prepared By: William R. Dougan Date: 08	/01_/	92_
$\omega \wedge \omega \wedge \omega \wedge \omega$		
Certified By: Mallum K. Joulem Date: 08	/01 /	92_
Certified Silvidulturist		

Southeast Chichagof Final EIS \* Appendix L

UNIT # 1977 of the SE Chichagof Timber Sale STAND # 63, 64 VCU 233 MANAGEMENT AREA C34

ACRES 39	Determined H	ow: GIS	By Whom: T. Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: Sl		Flight Line 33B	Photo #'s <u>2384-13</u>	6
SITE CHARACTER	STICS:			
Landform: Smooth Slope Configura Plant Associaticonifer/skunk Soil: (cm) _SMU = Parent Material Soil Depth: Potential of Ma  STAND CHARACTER Stand Examinati Stand History: V Potential Windt	n frequently ation: Valle ton: Mountain cabbage. = 3257D, 3643 1:Colluvium/r 150 S ass Failure: RISTICS: ton: Type R Vind processe throw Hazard: s: Some pini,	dissected mountains y bottom.  hemlock/blueberry,  c esiduum/ablation ti oil Texture: Silt 1 Moderate.  6 Quick Plot Type 1 s appear to be the Low	to S Slope:_ lopes and broken mt Site Index ( mixed conifer/bluebe  ll over compact till oam to gravelly silt  major stand developme  ng/dead tops. Little	& hill slopes Farr): 83 rry and mixed loam.  Date 06/23/91 nt influence
Species Composi	ition (trees	d. Decadent with s	55 %MH _19 %AC ome scrub areas. Sap erally unmanageable.	s and poles
Ave. DBH (trees	5 5+" DBH): 1	3 in. Ave. TPA (t	ft. Ave. Age: 150+ rees 5+" DBH): 250 5% skunk cabbage.	<u>yr</u> .
		20.9 MBF Tota		BF
Fisheries - No with potential	yard v-notch concerns. H for sediment ed. Employ e	along west side of ydrology - Unit is delivery to Class	unit. Recommend part in a high mass wastin I stream below unit. easures. BMPs 13.9 a	g hazard area Log suspen-

Forest Plan: VCU 233 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I stream below unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Poor vigor of overstory/understory precludes partial cut option. Clearcut with reserve trees minimizes adverse impacts on forest health and provides for establishment of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Paganavation Myantmonts: Glassout bassact fallowed by vatural varioustics
Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of area; spruce and cedar are
expected to be minor components in new stand. Localized wet areas will likely
take longer to regenerate.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump/group snags along backline, sides or bottom
of unit to maximize retention. If inadequate snags exist, mark green trees for
retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

# INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Rd. #7561 and a temporary spur road access Temporary spur road will be closed, waterbarred, and grass-see					
Logging System: Designed for running skyline and slackline. Resuspension for entire unit. Combine with unit 1970 if both are					
Unit Boundary: Units 1976 and 1977 are adjacent to each other. provides boundary between units. Provide for windfirm boundar Streamside Management: Class I stream located below unit. Larwest unit boundary.	y alon	g notch.			
Wildlife Management: See Reserve Trees.					
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Maintain drainage on Rd. 7561 (culverts, ditculverbar, and grass-seed spurs. Partial suspension required.  Fuel Treatment: None prescribed.					
Planting: None prescribed.					
Animal Damage Control: None prescribed.					
Vegetation Management: None prescribed nor anticipated.					
Precommercial Thinning: None prescribed nor anticipated.					
Commercial Thinning: None prescribed nor anticipated.					
Final Harvest: Evaluate for harvest 95-100 years following har	vest.				
MONITORING PLAN:					
Activity and Date	Fund	Who			
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.			
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.			
Check road drainage structures annually		RD Roads			
Check for blowdown timber annually each spring		RD Silv.			
Monitor v-notch along west boundary for ravelling Fish/Hydro					
	1				
Prepared By: William R. Dougan Date: 08	/01 /	92_			

Southeast Chichagof Final EIS \* Appendix L

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Date: <u>08 /01 /92</u>

UNIT # 1980	of the <u>SE Chicha</u>	gof Timber Sale
STAND #43,46,57	VCU <u>233</u>	MANAGEMENT AREA C34

ACRES 63	Determined How: GIS		By Whom: T. Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: S		Line <u>33</u>	Photo #'s 1184-164	
SITE CHARACTER	RISTICS:			
Landform: Smoo	to 900 ft.  oth, frequently dissectation: Valley bottom/  cion: Mixed conifer/bl	ted mountainsl	opes Site Index (F	30 to 70 % arr): 72 berry.
Parent Materia Soil Depth: 15	= 3247C, 3243C al: Colluvium/ablation 50 Soil Text Mass Failure: Low to m	ure: Silt loam		
STAND CHARACTE		louer acc.		
Stand History: Potential Wind	cion: Type R6 Quic Wind processes appea Athrow Hazard: Moderat cs:Some pini, pinicola	er to be the ma	jor stand developme	nt influence
	sition (trees 5+" DBH) re: <u>Uneven aged stand</u> s			
	Understory scattered,	•		
Ave. Height: 75 Ave. DBH (tree	ooor form and vigor, possible form and vigor f	Area: <u>210 sq.ft</u> . Ave. TPA (tree	Ave. Age: 150+ es 5+" DBH): 150-200	
	log Vol/Acre: <u>13.8 M</u> cies: H <u>7.7 M</u> BF A	MBF Total U AC 3.2 MBF	Init Vol: 1051 MB SS 2.9 MBF	<u>F</u>
	HER RESOURCES AND VALU			
	south boundary is ab			
	settings 1 and 2 (extansion on slopes >65% a			
unit. Hydrold	ogy - Unit in a high m	mass wasting ar	ea. Some potential	for sedi-

ment delivery to C.I channel. Log suspension recommended, employ erosion prevention measures. BMPS 13.9, 13.11. Fisheries, Wildlife - No concerns.

Visuals - Locate roads and landings to minimize visual impacts.

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notch and wetter areas in unit as well as streams adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut feasible in settings 1 and 2; decadence of overstory and threat of blowdown in remainder of unit precludes partial cut. Clearcut with reserve trees will minimize adverse impacts associated with blowdown and forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Settings 1 and 2: partial cut, leaving small groups of trees, particularly in larger wet areas. Remainder of unit: clearcut harvest followed by natural regeneration. Hemlock will likely be main regenerating species, with cedar becoming a minor component in new stand. Upper slopes have surface rock in places which will be more difficult to regenerate. Lower slopes have wet inclusions which will also be more difficult to regenerate; these areas will have groups of trees left to improve stocking and provide diversity.

Marking Guide: Settings 1 and 2: ITM small groups of trees (approx. 0.5-1 acre in size) such that about 1/3 of area (10 acres out of 30 acres) is left. Locate groups such that major wet areas, small streams, and small meadows/mus-kegs are included in groups for protection. Orient groups between skyline roads to protect them during yarding, and design to provide connectivity to habitat between unit and Class I stream. For remainder of unit, designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.	
L								

Transportation System: Accessed by Rd. #75605 and a temporary spur road that

climbs up to the south east setting of the unit. The temporar	y spur	road Will			
be closed, waterbarred, and grass-seeded after harvest. For v	isuals	, locate			
roads and landings to minimize visual impacts.					
Logging System: Designed for running skyline. Require partial	suspen	sion for			
entire unit. Directionally fell and split yard v-notches. IT					
leave; consider locations relative to yarding needs. Designa					
lateral yarding capability needed in settings 1 and 2.					
Unit Boundary: Ensure south boundary is above slope break of v	-notch	along south			
side of unit. Portion of TTRA buffer in NW corner of unit.					
Streamside Management: TTRA buffer touches W boundary. Protec	t smal	l streams/			
wet areas in settings 1 and 2 by inclusion in groups to be lef	t.				
Wildlife Management: See Reserve Trees.					
Reserve Trees: For settings 1 & 2 leave/protect as groups alon	g stre	am courses/			
wet areas. Leave 2 snags per acre. Refer to Marking Guide fo	r inst	ructions.			
Erosion Control: Partial suspension required. Maintain Rd. 75	605 (c	ulverts,			
ditches). Close, waterbar, and grass-seed spurs post-use.					
Fuel Treatment: None prescribed.					
Planting: None prescribed.					
Animal Damage Control: None prescribed.					
Vegetation Management: None prescribed nor anticipated.					
Precommercial Thinning: None prescribed nor anticipated.					
Commercial Thinning: None prescribed nor anticipated.					
Final Harvest: Evaluate for harvest in 95-100 years following	harves	t.			
NONTEOD THE DY NY					
MONITORING PLAN:					
	1	1			
Activity and Date	Fund	Who			
Natural vacanavation and A.F.					
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.			
Check road drainage structures and 4-6 years after harvest	KV	RD Silv.			
Check road drainage structures annually		RD Roads			
Check for blowdown timber annually each spring		RD Silv.			
Monitor groups left in settings 1 and 2 for windfirmness and use by wildlife		G 13 /5713 3			
Monitor TTRA buffer for effectiveness, windfirmness	KV	Silv/Wild.			
Monitor TTRA buffer for effectiveness, windfirmness Fish/Hydro					
	<b></b>				

Certified By: Milliam Condum

Certified Silviculturist

Date: <u>08 /01 /92</u>

Date: <u>08 /01 /92</u>

Prepared By: William R. Dougan

UNIT # 1981 of the SE Chichagof Timber Sale

STAND #56,57,88 VCU 233 MANAGEMENT AREA C34

ACRES 45 Determined How: GIS	By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1986</u> Flight Line <u>33</u> Scale: 1:12000 1/4 Quad ID: <u>SITC5NE</u>	Photo #'s <u>1184-165</u>
SITE CHARACTERISTICS:	
Elevation: 400 to 1100 ft. Aspect: NW Landform: Smooth infrequently dissected mt.slc Slope Configuration: Valley bottom/convex. Plant Association: Mixed conifer/blueberry and	opes and gently sloping lowlands.  Site Index (Farr): 92
Soil:(cm) <u>SMU = 3521D, 6145B</u>	
Parent Material: Colluvium/residuum/ablation ti Soil Depth: 150 Soil Texture: Loam t Potential of Mass Failure: Low to moderate.	to gravelly silt loam.
STAND CHARACTERISTICS:	
Stand Examination: Type R6 Quick Plot Type I Stand History: Wind processes appear to be the Potential Windthrow Hazard: Low to moderate. Damaging Agents: Some pini, pinicola, and dead No mistletoe sighted. Scattered blowdown in sconcentrated.  Species Composition (trees 5+" DBH): 20-50 %WF Stand Structure: Crowns overmature and ragged i except stand 88 which is even aged and still fally of poor form and vigor, sparse stocking. Ave. Height: 75-85 ft. Basal Area: 210 sq. Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" D	e major stand development influence  d/dying tops. Not a lot of defect.  some areas, though not heavily  H 20-80 %MH 20-60 %AC 0-5 %SS  In areas. Uneven aged stands  fairly vigorous. Understory gener-  oft. Ave. Age: 150+ yr.  trees 5+" DBH): 150-200
Total Net Sawlog Vol/Acre: 27.4 MBF Total Volume by Species: H 15.7 MBF AC 10.3 MBF  SUMMARY OF OTHER RESOURCES AND VALUES:	
Soils - Recommend full suspension across any ved and partial suspension over rest of unit.  Fisheries, Wildlife, Hydrology - No concerns.	7-notches that can't be split yard-

Forest Plan: VCU 233 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and v-notches within unit. Provide for diversity through retention of groups of vigorous trees.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Partial cut feasible in settings 4 and portion of 5, where overstory is still vigorous. This area is primarily even aged.

The remainder of the unit has poor overstory vigor and crown conditions. Clearcut with reserve trees will minimize adverse impacts of disease and windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Setting 4 and area of setting 5 designated for uphill yarding: leave small groups of trees for diversity and to continue growth. Remainder of unit: clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; spruce and cedar will be minor components of new stand. Wetter areas will likely be difficult to regenerate.

Marking Guide: Setting 4 and uphill yarding area of setting 5: ITM small groups (0.5-1 acre in size) to be left. Locate groups to include wetter areas, small streams and muskegs within leave areas. Orient groups between skyline roads and provide connectivity to unharvested habitat below unit boundary. Approximately 40% of area (5 of 11 acres) should be left in groups. For remainder of unit, designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline or sides of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Transportation System: Accessed by Rd.# 756051.
Logging System: Designed for running skyline and slackline. Directional fell away from and split yard v-notches. Full suspension over v-notches that can't be split yarded. ITM or LTM leave groups; consider yarding needs, designate
<pre>corridors, lateral yarding required. Unit Boundary: Provide for windfirm boundary.</pre>
Unit Boundary: Provide for windfilm boundary.
Streamside Management: Several v-notches located within unit boundary. Protect through split yarding or full suspension if yarded over.
Wildlife Management: See Reserve Trees.
Reserve Trees: In setting 4 & 5 partial cut. Leave/protect in patches within
clearcut. Also leave 2 snags per acre in entire unit. Refer to Marking Guide.
Erosion Control: Maintain drainage on Rd. 756051 (culverts, ditches). Minimize disturbance in and around v-notches.
Fuel Treatment: None prescribed.
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base need
for PCT on results of PCT exam.
Commercial Thinning: Possibility exists for commercial thinning since site is highly productive. Evaluate using stand exam 55-60 years after harvest.
mighty productive. Evaluate using stand exam 55-60 years after narvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 17-20 years after harvest (based on results of exam)		RD Silv.
Monitor groups left in settings 4 and 5 for windfirmness and		
wildlife use		Silv/Wild.
Stand exam 55-60 years after harvest to evaluate CT need		RD Silv.

Final Harvest: Evaluate for harvest 95-100 years after harvest.

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: \_\_\_\_\_\_\_ Date: 08 /01 /92 Certified Silviculturist

UNIT # 1992 of the <u>SE Chichagof</u> Timber Sale
STAND #32, 43
ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>34B</u> Photo #'s <u>2484-100</u> Scale: 1:12000 1/4 Quad ID: <u>SITC5NE</u>
SITE CHARACTERISTICS:
Elevation: 300 to 1200 ft. Aspect: NW Slope: 35 to 90  Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Convex/valley bottom. Site Index (Farr): 87  Plant Association: Western hemlock/blueberry, western hemlock/yellow cedar/
blueberry and western hemlock/blueberry-devil's club.
Soil:(cm) SMU = 3258D, 3247C
Parent Material: Colluvium or ablation till over compact till.
Soil Depth: 150 Soil Texture: Mucky silt loam.
Potential of Mass Failure: Moderate to high.
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 06/20/Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate to high.
Damaging Agents: Lots of broken/dead tops and windthrow. Some forks and crooks
Species Composition (trees 5+" DBH): 80-90%WH 0 %MH 5-15 %AC 5 %SS Stand Structure: Uneven aged. Scattered large trees. Generally poor vigor and crowns. Midstory mostly in canopy gaps. Understory unmanageable due to poor vigor and crowns.
Ave. Height: 100-120 ft. Basal Area: 220 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 15-25in. Ave. TPA (trees 5+" DBH): 125-175  Ground Cover: 40%-70% blueberry; 5% devil's club.
Total Net Sawlog Vol/Acre: 32.4 MBF Total Unit Vol: 1539 MBF Volume by Species: H 21.1 MBF AC 1.3 MBF SS 10.0 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Split yard on v-notch between settings and recommend full suspension of
steep slopes below the backline. Fisheries - No concerns. Hydrology - Unit i
located in high mass wasting hazard area with potential for sediment delivery
to Class I stream below unit. Log suspension recommended. Employ erosion pre
vention measures. BMPs 13.9 and 13.11.
Visuals - Locate roads and landings to minimize visual impacts.

Forest Plan: VCU 233 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource, particularly in areas of high soil hazard.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Stand health and risk of blowdown make partial cut infeasible. Clearcut with reserve trees will minimize the occurrence of adverse impacts associated with disease and windthrow affecting forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; cedar will likely be a
minor stand component. Areas of shallow soils/rocky areas on upper slopes and
areas of poorer drainage will likely be more difficult to regenerate.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar; hemlock is least desir-
able for snag retention. Clump/group snags along backline, sides and bottom of
unit to maximize retention. If inadequate snags exist, mark green trees for
retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation	System:_	Accessed	by tem	porary	spur	road	off Rd.	.#75604.	Temporary
spur road will									
roads and land:	ings to m	inimize v	isual	impact	•				

Logging System: Designed for running skyline and slackline. Require directional felling and split yard v-notch. Require partial suspension for settings 1 and 3; full suspension for settings 2 and 4 due to high hazard soils.

Unit Boundary: Layout boundary to maximize windfirmness, as this area has high blowdown potential.

Streamside Management: Protect v-notch. Class I stream located below unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking guide for instructions for marking.

Erosion Control: Require partial/full suspension to minimize soil disturbance. Close, waterbar, and grass-seed apur roads after harvest.

Fuel Treatment: None prescribed.

Planting: None prescribed. Monitor regeneration carefully, particularly on upper slopes where soils are more shallow and surface rock exists.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base need for PCT on results of exam.

Commercial Thinning: <u>High productivity of site makes CT a possibility</u>. Evaluate using stand exam 55-60 years after harvest.

Final Harvest: Evaluate for final harvest 95-100 years following harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By:

Certified Silviculturist

Date: <u>08 /01 /92</u>

	UNII # 2030	or the <u>se chicha</u>	Idol Illinei Pale	
STAN	TD # 6,7,11	VCU 233	MANAGEMENT AREA C.	34
ACRES 54	Determined Ho	ow: GIS	By Whom: T.Falkne	r Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: Si		Flight Line 35	Photo #'s <u>1684</u>	-186
SITE CHARACTER	ISTICS:			
Landform: <u>Smooth</u> Slope Configura	h infrequently ation: Valley	dissected mt.slo	to NE Slope:  pes & frequently diss Site Index e.	sected ftslopes
	l: <u>Colluvium/ab</u> 150 So	olation till over oil Texture: Mucky	compact till.  to gravelly silt loa	nm.
STAND CHARACTE	RISTICS:			
Stand History: Potential Winds	Wind processe throw Hazard: s:Low to moder	Low to moderate.	pe 11 e major stand develor me pini conks; lots o	
Stand Structure	e: <u>Uneven aged.</u>	Fairly open sta	H <u>80-100%</u> MH <u>0-5 %</u> Pnd with lots of canor	y gaps. Poor
Ave. Height:	s 5+" DBH): 26	in. Ave. TPA (	.ft. Ave. Age: 150+ trees 5+" DBH): 22 ty menziesia; 5% sku	_
Total Net Sawlo			al Unit Vol: 684 F SS <u>O</u> MBF	MBF
tree buffer. V design rockpits road shoulders loss of acres, stream along N	de for 500 foo isuals-Locate s to min. impa . Blend bdrie don't extend W boundary. Fu	roads & landings acts. Mit. effect es. w/ topo. and n towards the saltwall suspension ove	N boundary. Provide to min. visual impacts of sidecast slash watural openings. Recater. Soils-Ensure by stream in setting 1 n. disturbance to bloom	s. Locate & v/in 30 feet of cWith a net ouffer on Recommend
			derway. Clear before	

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume for APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Poor vigor of overstory precludes use of partial cut. Clearcut with reserve trees provides for the establishment and growth of desired trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar will likely be a minor component in new stand, as will spruce. Localized wet areas dominated by skunk cabbage will likely be difficult to regenerate.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group along unit boundaries to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatments planned at this time.	

Transportation System: Accessed by Rd. #75602 and a temporary sp	ır off	Rd.#	75602
Temporary spur road will be closed, waterbarred, and grass-see			
For visuals - Locate road and landings to minimize visual impa			
design rockpits to minimize visual impacts.	2001 20	<u>Joure</u>	a.i.a
Logging System: Designed for live skyline, running skyline, and	highle	224	
Require directional felling and yard away from v-notch. Requi			
			1 255257
suspension for setting 1. Protect blocked out muskeg. Direct from buffer on streamcourse.	LUIIALLY	/ TeT	1 away
Unit Boundary: Blend w/ topo. & natural openings. Est. bounda	rv arol	ınd m	nakoa
Provide windfirm boundary.	Ly alo	aria iii	uskey.
Streamside Management: Ensure adequate buffer on stream along n	ort hwe	st bo	undary.
Protect v-notch within unit.	or cliwe.	36 20	unual y .
riocect v notch within dire.			
Wildlife Management: Provide for 500' beach fringe and eagle ne	st tree	e buf	fer.
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersit	у.
Refer to marking guide for instructions for marking.			
Erosion Control: Partial suspension-setting 1. Close, waterbar	, and o	grass	-seed
spur roads. Maintain Rd. 75602 drainage (culverts, ditches).			
Fuel Treatment: None prescribed.			
Planting: None prescribed. Monitor regen. in wetter areas for	adequa	acy.	
Animal Damage Control: None prescribed.		-	
Vegetation Management: None prescribed nor anticipated.			.,
Precommercial Thinning: None prescribed nor anticipated.			
Commercial Thinning: None prescribed nor anticipated.			
Final Harvest: Evaluate for harvest 95-100 years after harvest			
	·		
MONITORING PLAN:			
Activity and Date	Fund		Who
Natural regeneration exam 4-5 years after harvest	KV	RD	Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD	Silv.
Check road drainage structures annually			Roads
Check for blowdown timber annually each spring			Silv.
	-	<b></b>	
Prepared By: William R. Dougan Date: 08	/01 /	2	
Date: 00	101		

Certified By:

Certified Silviculturist

/ Date: 08 /01 /92

UNIT # 2031 of the <u>SE Chichagof</u> Timber Sale
STAND # 6, 11 VCU 233 MANAGEMENT AREA C34
ACRES 21 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-186 Scale: 1:12000 1/4 Quad ID: SITC4NW
SITE CHARACTERISTICS:
Elevation: 100 to 500 ft. Aspect: NW to NE Slope: 5 to 40 %  Landform: Smooth, infrequently dissected mountainslopes.  Slope Configuration: Valley bottom Site Index (Farr): 69  Plant Association: Mixed conifer/skunk cabbage
Soil:(cm) SMU = 3551D, 3547C  Parent Material:Colluvium/residuum/ablation till over compact till.  Soil Depth: 150 Soil Texture:Silt loam to mucky silt loam.  Potential of Mass Failure: Low
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 06/21/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Low to moderate mistletoe. Some pini conks. Lots of dead/dying trees, and dead/broken tops.
Species Composition (trees 5+" DBH): 5-10 %WH 80-100%MH 5 %AC 2 %SS Stand Structure: Uneven aged. Fairly open stand. Lots of canopy gaps. Poor crowns and vigor. Poles/seedlings are uniformly distributed, but have poor
Crowns/vigor and are infected with mistletoe. Heavy brush in some areas.  Ave. Height: 109 ft. Basal Area: 80 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 26 in. Ave. TPA (trees 5+" DBH): 22  Ground Cover: 25%-50% blueberry; 10%-20% rusty menziesia; 5% skunk cabbage.
Total Net Sawlog Vol/Acre: 20.6 MBF Total Unit Vol: 751 MBF Volume by Species: H 18.3 MBF AC 2.3 MBF SS 0 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Wildlife - Provide for a 500 foot beach fringe at the northern boundary of unit.  Visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Mitigate effects of sidecast slash within 30 feet of road shoulders. Blend boundaries with topographic features and natural openings. Recreation - If there is a net loss of acreage in this unit, don't extend the unit towards the saltwater. Soils - Recommend
partial suspension in northeast corner of setting 2 because of what appears to

be wetness problems. Fisheries - No concerns. Hydrology - No concerns.

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large woody material. Protect soil resource, particularly in wetter areas.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Heavy mistle infection in all canopy layers and decadent condition of overstory make partial cut infeasible. Clearcut with reserve trees minimizes the occurrence of potentially adverse impacts of disease affecting forest health, as well as providing for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of area; wetter areas will likely contain cedar/spruce in smaller numbers. Mistletoe will likely spread from adjacent uncut stands to regenerating hemlock, but infection should be lighter and confined primarily to areas adjacent to unit boundaries.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments:	No treatments planned at this time.

Transportation System: Temporary spur road with an adverse haul accesses this unit. Temporary spur road will be closed, waterbarred, and grass-seeded after harvest. For visuals - locate roads and landings to minimize visual impacts.

Locate and design rockpits to minimize visual impacts.

Logging System: Designed for running skyline. Require partial suspension (wet soils). Tie north boundary into existing clearcuts. May need artificial or multiple quy anchors for setting 1 due to adjacent muskeg. Fell away from buffer on streamcourse.

Unit Boundary: Blend w/ topo. and natural openings. If there is net loss of acres, don't extend the unit towards the saltwater. Tie boundary on north to existing clearcuts.

Streamside Management: There are no streams within the immediate vicinity of the unit.

Wildlife Management: Provide for 500' beach fringe at northern boundary.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Partial suspension required for wet soils. Close, waterbar, and grass-seed temporary spur road.

Fuel Treatment: None prescribed.

Planting: None prescribed. Monitor regeneration in wetter areas; if inadequate, consider planting cedar.

Animal Damage Control: None prescribed.

Vegetation Management: Monitor response of brush following yarding; areas of heavy brush may need treatment to get adequate regeneration.

Precommercial Thinning: None prescribed at this time. Monitor development of mistletoe in regeneration; consider PCT as method to lighten infection.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest; monitor		
regeneration in wetter areas closely	KV	RD Silv.
Certification of natural regen. 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor spread of mistletoe; plan TSI exam 14-15 years after		
harvest to assess need for PCT as tool for mistletoe control		RD Silv.

Prepared By: William R. Dougan Date:

Date: <u>08 /01 /92</u>

Certified By:

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 2040 of the SE Chichagof Timber Sale

ACRES Determined How: _GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1987</u> Flight Line <u>35</u> Photo #'s <u>1684-186</u> Scale: 1:12000
1/4 Quad ID: SITC4NW
SITE CHARACTERISTICS:
Elevation: 300 to 1100 ft. Aspect: NE Slope: 35 to 40 Landform: Smooth, infrequently dissected mountainslopes.
Slope Configuration: Valley bottom. Site Index (Farr): 80 Plant Association: Mixed conifer/blueberry.
Soil:(cm)_SMU = 3547C
Parent Material: Colluvium/ablation till over compact till.
Soil Depth: 150 Soil Texture: Mucky silt loam.
Potential of Mass Failure: Low.
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 06/21/9
Stand History: Wind processes appear to be the major stand development influence
Potential Windthrow Hazard: Low.
Damaging Agents: Moderate amount broken/dead tops. Some pini conks. Minor
forks, crooks and sweeps.
Species Composition (trees 5+" DBH): 10 %WH 89 %MH 1 %AC 0 %SS
Stand Structure: Uneven aged. Scattered large trees with canopy gaps between
them. Midstory - 10"-16" diameter. Understory - 6-15 ft. high and in poor for
Ave. Height: 67 ft. Basal Area: 140 sq.ft. Ave. Age: 150+ yr.
Ave. DBH (trees 5+" DBH): 10 in. Ave. TPA (trees 5+" DBH): 280
Ground Cover: 50% blueberry.
Total Net Sawlog Vol/Acre: 11.9 MBF Total Unit Vol: 974 MBF
Volume by Species: H <u>8.8 MBF</u> AC <u>3.1 MBF</u> SS <u>0 MBF</u>
SUMMARY OF OTHER RESOURCES AND VALUES:
Visuals - Locate roads and landings to minimize visual impacts. Locate and
design rockpits to minimize visual impacts. Mit. effects of sidecast slash
within 30 ft. of road shoulders. Make limited adjustment to soften boundaries.
Soils - No soils concerns.
Fisheries - No concerns.  Hydrology - Maintain unit boundary to slope break of Class III channel on west
side of unit. BMP 13.16.

Forest Plan: VCU 233 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource develoment where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags, large down woody material, and groups of vigorous, healthy trees.

Alternatives Considered: Requieration harvests considered include clearcut with reserve trees and partial cut. Partial cut feasible in settings 1 and 2. Remainder of unit should be clearcut due to likelihood of logging damage due to incompatible logging systems. Clearcut with reserve trees will minimize the occurrence of logging damage which could adversely affect forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Settings 1 and 2: Retain groups of trees up to 15" DBH while removing larger trees. Remainder of unit: clearcut harvest followed by natural regeneration. Hemlock is expected to regenerate over most of unit; cedar will be a minor component in regenerating stand.

Marking Guide: Settings 1 and 2: ITM trees in groups (1-2 acres in size) such that about 50% of area (17 of 34 acres) is retained. Within each group, retain trees up to 15" DBH; trees greater than 15" DBH should be removed. Orient groups between skyline corridors and provide connectivity to unit boundaries. Remainder of unit: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundaries to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments: No tr	reatments planned at	this time.	
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Transportation System: Accessed by temporary spur that will be	closed,	water-				
barred, and grass-seeded. For visuals - Locate roads and landings to minimize						
visual impacts. Locate and design rockpits to minimize visual impacts.						
Logging System: Designed for running skyline and downhill highle	ead. F	Require				
directional felling and yard away from v-notches. ITM or LTM						
Consider yarding requirements, designate corridors, require parts						
lateral yarding and directional falling in groups.						
Unit Boundary: Make limited adjustments to soften the straight	-edge e	effect of				
boundaries. Locate west boundary on slope break above Class I						
Streamside Management: Protect Class III stream on west bound						
located within unit.	,					
Wildlife Management: See Reserve Trees.						
Reserve Trees: Partial cut settings 1 and 2. Leave/protect as	ant abor	i+hin				
clearcut. Also leave 2 snags per acre in entire unit. Refer						
Erosion Control: Partial suspension in settings 1 and 2. Close	e, wate	erbar, and				
grass-seed spur post-use.						
Fuel Treatment: None prescribed.						
D1						
Planting: None prescribed.						
Parinel Parine Gradual Vancous (hal						
Animal Damage Control: None prescribed.						
Vegetation Management: None prescribed nor anticipated.						
Precommercial Thinning: None prescribed nor anticipated.						
Commercial Thinning: None prescribed nor anticipated.						
Final Harmonta Englishe for housest OF 100 mans fall mine house						
Final Harvest: Evaluate for harvest 95-100 years following har	vest.					
MONITORING DI BUA						
MONITORING PLAN:						
Nationity and Data	l a	tith a				
Activity and Date	Fund	Who				
Noting a second of the land	7/37	DD 041				
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.				
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.				
Monitor groups in settings 1 and 2 for windfirmness, wildlife		Silv/Wild.				
Check for blowdown timber annually each spring		RD Silv.				
Proposed Pro Millian P	101					
Prepared By: William R. Dougan Date: 08	/01 /9	32_				
1 1 M						
Certified By: William R.A. Dullan Date: 08	/01 /6	22				
Certified By: Date: 08	701 /9	0 2_				

UNIT # 1810 of the <u>SE Chichagof</u> Timber Sale
STAND #69,73,74
ACRES 52 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1987</u> Flight Line <u>35</u> Photo #'s <u>1684-189</u> Scale: 1:12000 1/4 Quad ID: <u>SITC5NE</u>
SITE CHARACTERISTICS:
Elevation: 500 to 1100 ft. Aspect: SE Slope: 20 to 55 %  Landform: Infrequently dissected ft.slopes/smooth infrequently dissected mtslopes  Slope Configuration: Convex Site Index (Farr): 62  Plant Association: Western hemlock/blueberry, and mixed conifer/blueberry.
Soil: SMU = 5143B, 3547C, 3643C  Parent Material: Ablation till over compact till/colluvium.  Soil Depth: (cm) 150 Soil Texture: Silt loam to mucky silt loam.  Potential of Mass Failure: Moderate
Stand Examination: Type R6 Quick Plot Type 11 (Stand 69 only) Date 08/16/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate  Damaging Agents: Mistletoe moderate to high over most of stand. Weather damage (forks, sweep) scattered across area. Rots present though defect is not high.
Species Composition (trees 5+" DBH): 15 %WH 85 %MH %AC %SS Stand Structure: Uneven aged stand. Overstory decadent, heavily mistletoed, with generally poor vigor. Understory poles/saps scattered, also infected with mistletoe.
Ave. Height: 70-110ft. Basal Area: 400sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 23 in. Ave. TPA (trees 5+" DBH): 139  Ground Cover: 70%-90% blueberry, <5% devil's club, rusty menziesii.
Total Net Sawlog Vol/Acre: 36.3 MBF Total Unit Vol: 2301 MBF Volume by Species: H 36.3 MBF AC 0 MBF SS 0 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Split yard on v-notches wherever possible and full suspension over any others.
Fisheries, Hydrology and Wildlife - No concerns.

Forest Plan: VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Reduce incidence of mistletoe in new stand. Protect v-notches and soil resource.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Heavy mistletoe in overstory and decadent stand conditions precludes use of partial cut. Clearcut with reserve trees will minimize the occurrence of potentially adverse impacts of disease on forest health and will provide for establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is expected to regenerate adequately over the unit. Localized areas of surface rock will likely be more difficult to get adequate stocking. Regenerating stand will likely become infected with mistletoe from surrounding stands, but infection will be lighter and less widespread than current conditions.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Clump/group snags along unit boundaries to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

ntermediate	Treatments:	No treatments planned	at this time.	•	
			<del></del>		

Transportation System: No problem with access. Temporary spur closed, waterbarred, and grass-seeded after harvest.	s will	be
Logging System: Designed for running skyline and slackline (app. Require directional felling and split yarding away from v-note		200 ft. EYD)
Unit Boundary: Layout boundary to be windfirm, as area has potential.	ential	for blow-
Streamside Management: No concerns. Unit is located above a T	TRA bu	ffer.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Split yard v-notches. Maintain Rd. 75653 (cu Close, waterbar, and grass-seed spurs post-use.  Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed at this time. Monitor opment in regeneration. Consider PCT as tool for sanitation i Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest in 95-100 years after harv	est.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor mistletoe development in regen. and schedule TSI exam		
if sanitation needed		RD Silv.

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By: \_

Certified Silviculturist

Date: 08 /01 /92

UNIT # 1820 of the SE Chichagof Timber Sale STAND #69,71,98,99 VCU 234 MANAGEMENT AREA C34

ACRES	_55	Determined	How: GIS		By Whom: T. Falkner	Date: 1991
Scale:	Photo: 1:12000 ad ID: S	<del></del>	Flight Line	34B	Photo #'s 2484-10	1
SITE C	HARACTER	ISTICS:				
			t. Aspe			40 to 70+ %
			tly dissected x			arr). 93
Plant	Associat	ion: Western	hemlock/blue	berry. wes	tern hemlock/yellow	
			lock/blueberr		<u> </u>	
	SMU:					
Parent	Materia	l:_Colluvium	/residuum			
	- '				to gravelly silt l	oam.
Potent	ial of M	ass Failure:	Low to moder	ate		
STAND	CHARACTE	RISTICS:				
Potent Damagi	ial Wind	throw Hazard s: Lots of p	: Low to mode istol butting	rate . Some pi	or stand developmenni and pinicola. Broughout stand.	
Stand	Structur	e: <u>Uneven a</u> g	s 5+" DBH): ed, decadent ed, infected	stand. Ov	erstory has general	
Ave. I	BH (tree	s 5+" DBH):_		TPA (tree	Ave. Age: 150+ s 5+" DBH): 139	yr.
		og Vol/Acre: ies: H <u>36.3</u>			nit Vol: <u>1868 MB</u> SS <u>MB</u> F	F
			AND VALUES:			
					est boundary is abo	
	of v-not	ch. If poss	ible, recomme	nd partial	suspension on uppe	r half of
unit.	tion Hyd	rology Wild	llife - No con			
risher	res, nyu	LOTOGY, WITC	TITLE - NO CON	CELIIS.		

Forest Plan: VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Requerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource, particularly on upper portion of unit. Protect v-notches within unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Presence of heavy mistletoe and decadence of overstory precludes partial cut. Clearcut with reserve trees will minimize the potentially adverse impacts of disease on forest health and will provide for the establishment of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit. Localized areas of surface rock will be difficult to regenerate. Mistletoe will likely infect the regenerating stand from adjacent uncut areas, but should not be a major problem. Areas adjacent to unit boundary will likely become infected over time.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatments	s planned at	this time	•	
	*				<del></del>	
						_,

Transportation System: Accessed by temporary spur that will be closed, water-barred and grass-seeded after harvest.
Logging System: Designed for slackline and running skyline. Require partial suspension for area above temporary road.
Unit Boundary: Ensure southwest boundary is above slope break of v-notch.
Streamside Management: No concerns. Protect v-notch along southwest boundary.  Stream located below unit.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.  Refer to marking quide for instructions for marking.  Erosion Control: Require partial suspension in area above road. Close, waterbar and grass-seed spur post-harvest.
Fuel Treatment: None prescribed.
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base needs for PCT on results of exam. Consider sanitation of mistletoe in PCT need.  Commercial Thinning: Possibility for CT since this is a high site. Evaluate for CT using stand exam 55-60 years following harvest.  Final Harvest: Evaluate for harvest 95-100 years following harvest.
MONITORING DIAM.

## MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.
Stand exam to evaluate need/opportunity for comm. thinning		
55-60 years after harvest		RD Silv.

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: \_\_\_\_\_\_\_ Date: 08 /01 /92

# UNIT # 1830 of the SE Chichagof Timber Sale

STAND #69,78,83,87,89 VCU 234 MANAGEMENT AREA C34

ACRES 41 Determin	ed How: GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Year <u>198</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NW</u>	7 Flight Line <u>35</u>	Photo #'s <u>1684-19</u>	0
SITE CHARACTERISTICS:			
Landform: <u>Smooth infreq.</u> Slope Configuration: <u>Co</u>	dissected mt.slopes	N to NW Slope:_ /freq. dissected ft.slop Site Index ( nd western hemlock/blueb	es/alluv fans Farr): <u>55</u>
Soil: $SMU = 3243C, 5$	261B, 5143B		
Parent Material: <u>Ablatic</u> Soil Depth:(cm) <u>150</u> Potential of Mass Failu	_ Soil Texture:Silt	loam to gravelly silt l	oam
STAND CHARACTERISTICS:			
Stand History: Wind/slid Potential Windthrow Haz Damaging Agents: Missir rot are fairly common. throughout area. Species Composition (tr	le processes appear tard: Low to moderate ag/dead tops are comm Mistletoe is modera	pe 11 o be the major developme on. Pini, frost cracks, te to high. Small areas  %WH 20-40 %MH 5-15 %AC st areas. Saps/poles ar	and basal of blowdown  5 5-15 %SS
but there is heavy brus			
Ave. DBH (trees 5+" DBH	I): 19 in. Ave. TPA	<u>sq.ft</u> . Ave. Age: <u>150+</u> (trees 5+" DBH): <u>160-190</u> y menziesia <8% devil's	)
Volume by Species: H 2	28.9 MBF AC 1.7		IBF
SUMMARY OF OTHER RESOUR Soils - High hazard soi		setting 1; recommend ful	l suspension
		wetness. Split yard or	
<pre>pension across v-notche rest of unit.</pre>	es for entire unit.	Partial suspension is re	commended for
Wildlife - No concerns.	Fisheries - no con	cerns.	
Hydrology - Unit is in	a high mass wasting	hazard area. Some poten	
		tive: reduce erosion. I ures. BMPs 13.9 and 13.	

Forest Plan: VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Reduce potential for sediment delivery to Class I stream below unit.

Alternatives Considered: Regeneration harvest considered include clearcut with reserve trees and partial cut. Heavy mistletoe, likelihood of blowdown and poor vigor of overstory make partial cut infeasible. Clearcut with reserve trees will minimize potentially adverse impacts of disease/windthrow on forest health and provide for the establishment and growth of desired trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of the unit, with cedar/spruce being a minor component. Localized areas of rocky/shallow soils will be difficult to regenerate. Mistletoe from adjacent stands will likely infect regeneration, but will likely infect only areas adjacent to unit boundary.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Intermediate Treatments: No treatments planned at this time.

Transportation System: Accessed by temporary spur road that wil	l be cl	Losed,
waterbarred, and grass-seeded after harvest.		
Logging System: Designed for running skyline. Require direction		
split yarding away from v-notches; full suspension over v-notc		
split yarded. Require partial suspension for entire unit; ful	l suspe	ension for
setting 1.		
Unit Boundary: Layout boundary for windfirmness.		
Streamside Management: Split yard v-notches in unit. Class I	stream	located
below unit.		
Wildlife Management: See Reserve Trees.		
	2 21	
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to marking guide for instructions for marking.		
Erosion Control: Unit is in high mass wasting hazard area. Some		
sediment delivery to the C.I stream. Require partial/full susp		
minimize soil disturbance. Close, waterbar and grass-seed tem	p. road	n post-use.
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
riancing: None prescribed.		
Animal Damage Control: None prescribed.		
Aminal Daniage Concrot. Notice prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Note of the first that the first tha		
Precommercial Thinning: None prescribed. Monitor mistletoe de	velopme	ent in re-
gen. and consider PCT as tool for sanitation if conditions war		2
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years following har	vest.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor mistletoe infection in regen.; use TSI exam if needed		RD Silv.
Check for blowdown timber annually each spring		RD Silv.
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Prepared By: William R. Dougan Date: 08	/01 /9	92_
10		
Certified By: Millian Ref Ondum / Date: 08		
The state of the s	/01 /9	92_
Certified Silviculturist		

UNIT # 1850 of the SE Chichagof Timber Sale

STAND #51,58,59, VCU 234 MANAGEMENT AREA C34

ACRES .	62	Determined Ho	ow: GIS		By Whom: T. Falkner	Date: 1991
Scale:	Photo: 1:12000 ad ID: <u>S</u>		Flight Line	e <u>36</u>	Photo #'s 1684-103	3
SITE C	HARACTER:	ISTICS:				
Elevat	ion: 350	0 to 1350 ft	. Asp	ect: NW	Slope:	5 to 70 %
			_		pes and footslopes	
		ation: Convex				
_					n hemlock/blueberr	
mounta	in hemlo	ck/blueberry.	-			
Soil:_	SMU =	3247C, 3002E	, 5256B			
Parent	Materia:	l:Colluvium/a	blation til	l over comp	act till.	
Soil De	epth: (cm	) <u>150</u> S	oil Texture	: Mucky to g	ravelly silt loam.	
Potent:	ial of Ma	ass Failure:_	Moderate.			
STAND (	CHARACTE	RISTICS:				
01 - 1 1			76 6 1 1 71			00/15/01
		ion: Type				Date <u>08/15/91</u>
		throw Hazard:			the major stand in	ruences
					te to high decay.	Dini is
		etoe is moder				F 1111 13
					-30 %MH 5-10 %AC	5-40 %SS
	_				ly good form. Sap	
		e, but unders				<u>-/ p</u>
					Ave. Age: 150+	vr.
					s 5+" DBH):140-160	
				·	ry, devil's club a	nd rusty
menzie						
Total 1	Net Sawl	og Vol/Acre:_	29.8 MBF	Total U	nit Vol: 2227 M	BF
Volume	by Spec	ies: H <u>24.6</u>	MBF AC _	0.8 MBF	SS <u>4.4</u> MBF	
SUMMAR	Y OF OTH	ER RESOURCES	AND VALUES:			
				bear habit	at is in the ripar	ian area to
		expansion int				
<u>Visual</u>	s-Locate	roads & land	ings to min	. visual im	pacts. Locate roc	kpits to min.
visual	impacts	. Mitigate e	ffects of s	idecast sla	sh w/in 30 ft. of	road
					undaries. Soils-Re	
					settings 6 & 7 due	
					ncerns. Hydrology	
					channels reduce of	
SIPPAM	S A DOTA	DE 101111 to th	0 (   1) **0	TOOK O TIT	anannola woduca o	rogion Chlit

yard C.III channels, log susp. recommended. BMPS 13.9, 13.11, 13.16.

Forest Plan: VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and minimize possibility of impact to Class III and I channels within and downstream from unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Mistletoe in overstory and decadence of stand preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate over most of unit, though mistletoe will likely spread to regen. Spruce will regenerate on lower slopes near streams. Cedar will be planted over about 50% of unit to ensure its presence in regenerating stand.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides or bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatment	s planned at	this tim	ne.	

Transportation System: Road 7565 runs through the unit then switchbacks and goes through the top half of the unit. For visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

Logging System: Designed for running skyline and slackline. Require directional fell and yard away from v-notch in settings 2, 3, and 4. Require partial susp. for entire unit; full susp. for set #4 (high hazard soils). Directional fell away from Class II buffer.

Unit Boundary: Incorporate Class II buffers into unit boundary layout.

Streamside Management: Class III channels within unit; Class I and II streams adjacent to unit. Split yard v-notches.

Wildlife Management: High quality (HSI=1.0) brown bear habitat located outside unit to NW in riparian area. Avoid expansion into this area.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Unit is in high mass wasting hazard area. High potential for sed. del. to the C.III streams & potentially to the C.I. Objective: protect C.III channels, reduce erosion. Split yard on C.III channels within the unit, log susp. recommended, employ erosion prevention measures. BMPs 13.9,13.11,13.16 Fuel Treatment: None prescribed.

Planting: Plant ~ 50% (30 acres) with cedar following harvest. Area to plant is upper half of unit. Plant 20 x 20 ft.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed. If hemlock becomes heavily infected with mistletoe, consider PCT as sanitation tool.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest in 95-100 years following harvest.

## MONITORING PLAN:

Activity and Date	Fund	Who
Plant ~ 30 acres with cedar following harvest, 20 x 20 ft.	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural		
_regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.
Road maintenance (culverts, ditches) on Rd. 7565		Eng.
Monitor TTRA buffers for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

Certified Silviculturist

Date: 08 /01 /92

U.	NIT # <u>1853</u>	of the <u>S</u>	SE Chichagor	Timber	Sale	•
STAND	#_51,59, <u>18</u> 5	VCU	234	MANAGEMENT	AREA	C34

ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1987</u> Flight Line <u>35</u> Photo #'s <u>1684-190</u> Scale: 1:12000  1/4 Quad ID: <u>SITC4NW</u>
SITE CHARACTERISTICS:
Elevation: 900 to 1500 ft. Aspect: NW Slope: 5 to 70 % Landform: Broken mountainslopes and hillsides.
Slope Configuration: Convex. Site Index (Farr): 98  Plant Association: Mixed conifer/blueberry, western hemlock/blueberry and mountain hemlock/blueberry.
Soil: SMU = 3621D, 3002E  Parent Material: Colluvium/residuum
Soil Depth:(cm) 150 Soil Texture: Gravelly silt loam.  Potential of Mass Failure: Moderate.
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 08/15/91 Stand History: Wind/slide processes appear to be major stand influences. Potential Windthrow Hazard: Low to moderate.
Damaging Agents: Low defect in most areas. Moderate to high decay with pini conks common. Mistletoe moderate to high.
Species Composition (trees 5+" DBH): 55-70 %WH 20-30 %MH 5-10 %AC 5-40 %SS Stand Structure: Uneven aged. Overstory has generally good form. Saps and poles are mostly adequate but understocked in some areas.
Ave. Height: 90-100ft. Basal Area: 230 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 18 in. Ave. TPA (trees 5+" DBH): 140-160  Ground Cover: 20%-40% blueberry; <15% salmonberry, devil's club and rusty menziesia.
Total Net Sawlog Vol/Acre: 21.8 MBF Total Unit Vol: 1024 MBF Volume by Species: H 17.6 MBF AC 2.0 MBF SS 2.2 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts. Mit effects of sidecast slash within 30 feet of road shoulders. Make limited adjustments to soften boundaries.
Soils - Split yard on v-notch that runs down the center of the unit between settings and ensure west boundary avoids the series of notches in that vicinity. Recommend full suspension in settings 1 and 2 and partial suspension in rest of unit.

Fisheries and hydrology have no concerns.

Forest Plan: VCU 234 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect v-notch and soil resource.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Mistletoe presence in overstory precludes partial cut. Clearcut with reserve trees minimizes adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Plant cedar 20 x 20 ft. over entire unit to ensure presence in regenerating stand. Hemlock will regenerate naturally over most of unit, but will likely become infected with mistletoe from surrounding stands.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along backline, sides and bottom of unit to maximize retention. If inadequate snags exist, mark green trees for retention as recruitment trees. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock.

Intermediate	Treatments: No	treatments planned at this time.
		·

Transportation System: Accessed by a temporary spur off road 7565. The temporary spur road will be closed, waterbarred, and grass-seeded after harvest.

For visuals - Locate roads and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

Logging System: Designed for running skyline. Require directional fell and yard away from v-notch. Require partial suspension for entire unit; Full suspension for settings 1 and 2.

Unit Boundary: Make limited adjustments to soften the straight-edge effect of the boundaries. Ensure west boundary avoids a series of notches located towards the center of that boundary.

Streamside Management: No concerns. Split yard v-notch within unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.
Refer to marking guide for instructions for marking.

Erosion Control: Partial/full suspension in unit. Split yard v-notch. Close, waterbar, and grass-seed temporary road post-harvest.

Fuel Treatment: None prescribed.

Planting: Plant cedar 20 x 20 ft. spacing over entire unit.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: Evaluate for thinning 14-16 years following harvest.

Base thinning needs on results of PCT exam.

Commercial Thinning: Possibility of commercial thinning as site is productive. Evaluate using stand exam 55-60 years after harvest.

Final Harvest: Evaluate for harvest in 95-100 years after harvest.

## MONITORING PLAN:

Activity and Date	Fund	Who
Plant unit with cedar, 20 x 20 ft. spacing following harvest	KV	RD Silv.
Installation of survival transect during planting operations	KV	RD Silv.
Survival exams, 1 and 3 years after planting; evaluate natural		
regen. during 3 year exam	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Certification of regeneration 3-4 years after harvest	KV	RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By:

Date: <u>08 /01 /92</u>

# INTEGRATED SILVICULTURE PRESCRIPTION Page 1 of 3

UNIT # 1050 of the SE Chichagof Timber Sale STAND #109,111,115 VCU 236 MANAGEMENT AREA C37

ACRES 56 Determined	How: GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Year 1989 Scale: 1:12000 1/4 Quad ID: SITC4NE	Flight Line <u>42B</u>	_ Photo #'s <u>2284-90</u>	
SITE CHARACTERISTICS:			
Elevation: 520 to 1440 Landform: Smooth, frequent Slope Configuration: Convert Plant Association: Western club. Soil: SMU = 3257D Parent Material: Colluvium Soil Depth: (cm) 150 Potential of Mass Failure	tly dissected mountains: ex hemlock/blueberry & wes m/residuum/ablation till Soil Texture: Gravelly	lopes Site Index (Fstern hemlock/bluebe	
STAND CHARACTERISTICS:	<u></u>		
Stand Examination: Type_Stand History:Potential Windthrow Hazard Damaging Agents: Light to Some crooks and breakage.	d: Low to moderate. moderate pini, pinicola		mistletoe.
Species Composition (tree Stand Structure: 60%-85% aged stand of hemlock and	canopy cover. Younger t		
Ave. Height: 60-110ft.  Ave. DBH (trees 5+" DBH): Ground Cover: 60%-70% blue	<u>in.</u> Ave. TPA (tree	es 5+" DBH):	yr.
Total Net Sawlog Vol/Acre Volume by Species: H	: MBF Total	Unit Vol: 2115 MB SSMBF	<u>F</u>
SUMMARY OF OTHER RESOURCE	S AND VALUES:		
Visuals - Make limited ad			
Soils - Ensure boundary a		mass movement hazard	as shown
on photo. Fall trees awa Fisheries, Hydrology, Wil			

Forest Plan: VCU 236 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term timber sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand exam information and presence of mistletoe in overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit; spruce will be a minor component in the new stand, confined to areas where adequate soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

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Transportation System: Road existing. Construct landing for he	elicopt	er logging.				
Logging System: Designed for helicopter. Recommended landing is located						
northeastward off of road 7540. Require directional felling away from						
v-notches. Northern boundary is existing clearcut.						
Unit Boundary: Soften southern boundary. Northern boundary is	existir	ng clearcut.				
Avoid extreme mass wasting hazard areas.						
Streamside Management: No concerns. Class III stream located	on west	side of				
unit.						
Wildlife Management: See Reserve Trees.						
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.				
Refer to marking guide for instructions for marking.						
Erosion Control: Helicopter yarding will minimize soil disturb	ance.					
Close, provide for drainage, and grass-seed helicopter landing	(s).					
Fuel Treatment: None prescribed.						
Planting: None prescribed.						
Animal Damage Control: None prescribed.						
Vegetation Management: None prescribed nor anticipated.						
Precommercial Thinning: Schedule PCT exam 14-16 years after ha	rvest.	Base need				
for PCT on results of exam.						
Commercial Thinning: Possibility to consider commercial thinni	ng sind	ce site				
quality is high; economics of helicopter thinning need to be constitution of the const	_					
Final Harvest: Evaluate for harvest 95-100 years following har						
MONITORING PLAN:						
Activity and Date	Fund	Who				
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.				
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.				
Check for blowdown timber annually each spring		RD Silv.				
PCT exam 14-16 years following harvest		RD Silv.				
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.				
The state of the s						

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By:

Certified Silvidulturist

Date: <u>08 /01 /92</u>

UNIT # 1051 of the SE Chichagof Timber Sale
STAND # 109,119
ACRES 39 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>42B</u> Photo #'s <u>2284-90</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 500 to 1150 ft. Aspect: NE to Slope: 20 to 55 % Landform: Smooth frequently dissected mountainslopes/mountainslopes with mass wasting and avalanches.  Slope Configuration: Convex Site Index (Farr): 80 Plant Association: Western hemlock/blueberry/shield fern and western hemlock/blueberry.
Soil: SMU = 3257D, 3006E.  Parent Material: Colluvium/residuum  Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam to gravelly loam.  Potential of Mass Failure: Moderate to high.
STAND CHARACTERISTICS:
Stand Examination: Type None (Walk-thru of area done) Date 07/17/90 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Low to moderate.  Damaging Agents: Light to moderate pini, pinicola, frost cracks and mistletoe.  Some crooks and breakage.  Species Composition (trees 5+" DBH): 60 %WH 25 %MH 0 %AC 15 %SS
Stand Structure: 60%-85% canopy cover. Younger trees near clearcut.  Uneven aged stand of hemlock and spruce.
Ave. Height: 60-110ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):  Ground Cover: 60%-70% blueberry; 10%-20% devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1559 MBF Volume by Species: HMBF ACMBF SSMBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Visuals - Make limited adjustments to soften eastern boundary's visual effect.  Soils - Ensure backline is below area of extreme mass movement hazard as shown
on photo. Fall trees away from v-notches. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity. Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and presence of mistletoe preclude partial cut. Clearcut with reserve trees will minimize the adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992). MANAGEMENT PRESCRIPTION: Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to reqenerate naturally over the unit; spruce will likely be a minor component in the new stand due to lack of soil disturbance sufficient to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife

and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

ntermediate			

# INTEGRATED SILVICULTURE PRESCRIPTION Page 3 of 3

Transportation System: Construct landing for helicopter logging.					
Logging System: Designed for helicopter. Recommended landing is northward off of road 7540. Require directional felling away					
Northern boundary is at the existing clearcut.		<del></del>			
Unit Boundary: Soften eastern boundary. Northern boundary is a	t the e	existing			
clearcut. Avoid extreme hazard soils.  Streamside Management: No concerns. Protect v-notches during:	falling	operation.			
Wildlife Management: See Reserve Trees.					
Reserve Trees: 2 snags per acre left for wildlife and structura	al dive	ersity.			
Refer to marking guide for instructions for marking.					
Erosion Control: Directional felling away from v-notches. Hel					
will minimize soil disturbance. Close, drain, and grass-seed la	anding	(s).			
Fuel Treatment: None prescribed.					
Planting: None prescribed.					
Animal Damage Control: None prescribed.					
Vogetation Managements None progratified new anticipated					
Vegetation Management: None prescribed nor anticipated.					
Precommercial Thinning: None prescribed nor anticipated.					
Commercial Thinning: None prescribed nor anticipated.					
Final Harvest: Evaluate for harvest 95-100 years following har	vest.				
MONITORING PLAN:					
MONITORING THAN,					
Activity and Date	Fund	Who			
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.			
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.			
Check for blowdown timber annually each spring		RD Silv.			
	<b>+</b>				
Prepared By: William R. Dougan Date: 08	/01 /9	92_			
Certified By: Million Couldin Date: 08  Certified Silviculturist	/01 /9	92_			

UNIT # 1090 of the SE Chichagof Timber Sale
STAND # 55 VCU 236 MANAGEMENT AREA C37
ACRES 24 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>42B</u> Photo #'s <u>2284-93</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 400 to 950 ft. Aspect: SW Slope: 15 to 65 % Landform: Broken mountainslopes and hillsides.  Slope Configuration: Convex Site Index (Farr): 94 Plant Association: Western hemlock/blueberry-devil's club.
Soil: SMU = 3623D
Parent Material: Colluvium/residuum
Soil Depth: (cm) 150 Soil Texture: Silt loam
Potential of Mass Failure: Moderate to high.
STAND CHARACTERISTICS:
Stand Examination: Type None (Walk-thru of area done) Date 07/16/90 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate to high.  Damaging Agents: Moderate to heavy frost cracks and conks; light to moderate forks and broken tops; pistol butts in larger trees. Old blowdown across area.
Species Composition (trees 5+" DBH): 60-80 %WH 20-40 %MH 0 %AC 5 %SS Stand Structure: 65%-90% canopy closure. Light understory in places. One area has old and new blowdown, Uneven aged hemlock, with small % of spruce and alder.
Ave. Height: 80-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 70%-90% blueberry; 5%-15% devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 944 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Visuals - Blend boundaries with topographic features and natural openings.  Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown or photo.
Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 236 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of blowdown precludes option of partial cut. Clearcut with reserve trees will minimize the adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regenera	tion	Treatments	: Clear	cut	harves	st	followed	by natu	ral re	egenerat	ior	1
Hemlock	is a	nticipated	to reger	nera	ate ove	er	the unit;	spruce	will	likely	be	a
minor st	and	component,	limited	to	areas	of	sufficie	nt soil	dist	urbance	to	expose
mineral	soil	•										

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No t	reatments	planned	at	this	time.	
					<del></del>			
							***	

Transportation System: Construct landing for helicopter logging road.	near	existing
Logging System: Designed for helicopter. Recommended landing is southward off of road 7540. Require directional felling away for Western boundary is located at the existing clearcut.		
Unit Boundary: Blend boundaries with topo. & natural openings. is located at the existing clearcut. Avoid extreme hazard soil		ern boundary
Streamside Management: No concerns.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structural Refer to marking guide for instructions for marking.  Erosion Control: Directional felling away from v-notches. Hell will minimize soil disturbance. Close, drain, and grass-seed Fuel Treatment: None prescribed.	Licopte	er yarding
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: Evaluate for PCT 14-16 years after hard for PCT on results of PCT exam.  Commercial Thinning: Possible option due to high site quality; ics of helicopter thinning when evaluating for commercial thinning the Harvest: Evaluate for harvest 95-100 years following harvest: MONITORING PLAN:	consid	
Activity and Date	Fund	Who
Noticed reconception over 4.5 mans often because	7777	DD C41
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; based on results of PCT exam		RD Silv.
Prepared By: William R. Dougan  Date: 08  Certified By: Milliam R. Dougan  Date: 08  Certified Silvigulturist		

UNIT # 1091 of the <u>SE Chichagof</u> Timber Sale
STAND # 55, 70
ACRES 84 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>42B</u> Photo #'s <u>2284-93</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 450 to 1500 ft. Aspect: SW Slope: 15 to 65 Standform: Smooth frequently dissected mtslopes/broken mountain and hill slopes.  Slope Configuration: Convex Site Index (Farr): 94  Plant Association: Western hemlock/blueberry/shield fern and western hemlock/blueberry/devil's club.  Soil: SMU = 3225E, 3623D  Parent Material: Colluvium/residuum  Soil Depth: (cm) 33-40&150 Soil Texture: Silt loam/gravelly silt loam.  Potential of Mass Failure: Moderate to high.
STAND CHARACTERISTICS:  Stand Examination: Type None (Walk-thru of area done) Date 07/16/90 Stand History: Wind processes appear to be the major stand development influence
Potential Windthrow Hazard: Moderate to high.  Damaging Agents: Light to moderate incidence of forks and broken tops. Moderate to high incidence of frost cracks and conks. Pistol butts common in larger trees. Blowdown found across the area (both old and recent windthrow).  Species Composition (trees 5+" DBH): 60-80 %WH 20-40 %MH
Ave. Height: 80-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 70%-90% blueberry; 5-15% devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 3292 MBF Volume by Species: H MBF AC MBF SS MBF  SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Ensure backline is below area of extreme mass movement hazard as shown on photo. Fall trees away from v-notches. Remove any slash or debris intro-
duced into the two deep v-notches in the south part of the unit.  Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and decadence of overstory preclude option of partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate naturally over most of unit; spruce will
likely be a minor component due to lack of seed sources and necessary soil
disturbance to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No t	reatments	planned	at	this	time.	 	
								 -	
					_			 	

Transportation System: Construct landing for helicopter loggin	g near	exist	ting
road.			
Logging System: Designed for helicopter. Recommended landing i off of road 7540. Require directional felling away from v-no			
boundary is located at the existing clearcut.	cenes.	wesi	rern
boundary is located at the existing clearedt.			
Unit Boundary: Western boundary is located along existing clea	rcut.		
Avoid extreme hazard soils.			
Streamside Management: No concerns.			
		<del></del>	
Wildlife Management: See Reserve Trees.			
Reserve Trees: 2 snags per acre left for wildlife and structur	al div	ersit	v.
Refer to marking quide for instructions for marking.			/
Erosion Control: Directional felling away from v-notches. Hel	icopte:	r yar	ding
will minimize soil disturbance. Close, drain, and grass-seed	landing	qs.	
Fuel Treatment: None prescribed.			
Planting: None prescribed.			
rancing. None prescribed.			
Animal Damage Control: None prescribed.			
Vegetation Management: None prescribed nor anticipated.			
Duran and a land and a land a	,		
Precommercial Thinning: Evaluate for PCT 14-16 years following needs on results of PCT exam.	harves	st. I	Base
Commercial Thinning: Option exists for CT due to high site qua	1;+***	zonsi	dor
economics of helicopter thinning during evaluation.	IICY, C	CONST	der
Final Harvest: Evaluate for harvest 95-100 years following har	vest.		
MONITORING PLAN:			
Activity and Date	Fund	1 .	.7la =
Activity and Date	Fund		Who
Natural regeneration exam 4-5 years after harvest	KV	RD S	Silv.
Certification of natural regeneration 4-6 years after harvest	KV		Silv.
Check for blowdown timber annually each spring			Silv.
PCT exam 14-16 years after harvest			Silv.
PCT 16-18 years after harvest; base needs on results of exam		RD S	Silv.
	1-		
Prepared By: William R. Dougan Date: 08	/01 /9	92	

Certified By:

Date: <u>08 /01 /92</u>

UNIT # 1110 of the SE Chichagof Timber Sale STAND #70,84,86,87 VCU 236 MANAGEMENT AREA C37

ACRES 48 Determined How: GIS	By Whom: T.Falkner Date: 1991	1
Aerial Photo: Year <u>1989</u> Flight Line Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>	≥ 42B Photo #'s 2284-91	
SITE CHARACTERISTICS:		
Elevation: 750 to 1750 ft. Aspet Landform: Smooth, frequently dissected Slope Configuration: Convex Plant Association: Western hemlock/blue blueberry/devil's club.  Soil: SMU = 3225E  Parent Material: Colluvium/residuum  Soil Depth: (cm) 40 & 150 Soil Texture Potential of Mass Failure: Moderate to	mountainslopes Site Index (Farr): 91 eberry/shield fern and western hemlock/ :_Gravelly silt loam/silt loam	
	l recon of area done) Date 07/18, o be the major stand development influer ial recon.	
Species Composition (trees 5+" DBH):Stand Structure: 85%-95% canopy closure amounts of spruce.	70 %WH 0 %MH 0 %AC 30 %SS e. Uneven aged hemlock stand with minor	<u>r</u>
Ave. Height: 100-110 ft. Basal Area Ave. DBH (trees 5+" DBH): in. Ave Ground Cover: 65% blueberry; 5%-15% do	. TPA (trees 5+" DBH):	
Total Net Sawlog Vol/Acre: MBF Volume by Species: H MBF AC		
	ils, and contains many v-notches. Fall ny slash or debris intoduced into them.	

Forest Plan: VCU 236 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate the stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information precludes partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

# MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by n	atural regeneration.
Hemlock is anticipated to reqenerate naturally over mos	t of unit; spruce will be
a minor component, confined primarily to areas of suffi	cient soil disturbance to
expose mineral soil.	

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatments	s planned at	this	time.

Transportation System: Construct landing for helicopter logging near existing road.
Logging System: Designed for helicopter. Recommended landing is located
northwestward off of road 7540. Require directional felling away from
v-notches. Western boundary is located at the existing clearcut.
Unit Boundary: Western boundary is located at the existing clearcut.
Streamside Management: No concerns. Protect v-notches within unit.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.  Refer to marking quide for instructions for marking.
Erosion Control: Directional felling away from v-notches. Helicopter yarding
will minimize soil disturbance. Close, drain, and grass-seed landings.
Fuel Treatment: None prescribed.
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base needs
on PCT exam results.
Commercial Thinning: Option for CT due to high site quality; consider economics
of helicopter thinning during evaluation.
Final Harvest: Evaluate for harvest 95-100 years following harvest.
MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: William

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 1120 of the SE Chichagof Timber Sale

ACRES 40	Determined H	low: GIS		By Whom: T.1	<u>Falkner</u>	Date: 1991
Aerial Photo: Scale: 1:12000		Flight Line_	43	Photo #'s_2	284-189	
1/4 Quad ID: <u>S</u>	ITC4NE	_				
SITE CHARACTER	ISTICS:					
Elevation: 60 Landform: Smoot Slope Configur Plant Associat devil's club. Soil: SMU = 35 Parent Materia Soil Depth: (cm	h infrequentl ation: Convex ion: Western 25E, 3779E 1:Colluvium/r ) 40 & 150	y dissected months hemlock/bluebe	erry and	opes/mounta Site : western hem:	inslope Index (F lock/blu	ravines. arr): 90 eberry/
STAND CHARACTE	RISTICS:					
Stand Examinat Stand History: Potential Wind Damaging Agent	Wind processe throw Hazard:	es appear to be Moderate to l	e the majo			
Species Compos Stand Structur minor amounts	e: 80%-90% ca	anopy closure.	Uneven	aged stand o	of hemlo	30 %SS
Ave. Height: 90 Ave. DBH (tree Ground Cover:_	s 5+" DBH):	<u>in.</u> Ave. '	TPA (tree	s 5+" DBH):	:_150+	yr.
Total Net Sawl Volume by Spec		MBF AC				<u>F</u>
SUMMARY OF OTH						
Soils - Unit h		th hazard soils	s. Ensur	e boundary a	avoids a	rea of ex-
		th topographic	c feature	s and natura	al openi	ngs.
		life - No conce				

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will provide sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream along SW unit boundary.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of windthrow preclude option of partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock will likely regenerate over most of unit, with spruce regenerating in
minor amounts in areas of soil disturbance sufficient to expose mineral soil,
as well as in more favorable microsites (such as near streams).
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least

desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

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Transportation System: Road existing / construct landing west of Rd.#7540 for helicopter logging.

Logging System: Designed for helicopter. Recommended landing is located westward off of road 7540. Require directional felling away from v-notches. Western boundary is located at the existing clearcut.

Unit Boundary: Blend backline with topography and natural openings. Western boundary is located at the existing clearcut. SW boundary located along Class III stream. Avoid extreme hazard soils.

Streamside Management: No concerns. Lower portion of SW boundary includes Class III stream within unit and adjacent to unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Directional felling away from v-notches and Class III stream. Helicopter yarding will minimize soil disturbance.

Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base need for PCT on results of exam.

Commercial Thinning: Option exists due to high site quality; consider economics of helicopter thinning in evaluation.

Final Harvest: Evaluate for harvest 95-100 years following harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT Exam		RD Silv.

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: Date: 08 /01 /92

UNIT # 1121 of the SE Chichagof Timber Sale STAND # 123, 125 VCU 236 MANAGEMENT AREA C37

ACRES _	17	Determined H	ow: GIS	By Whom:	r.Falkner	Date: 1991
Scale:	Photo: 1:12000 ad ID: <u>S</u>		Flight Line4	Photo #'	s <u>284−189</u>	
SITE CH	HARACTER	ISTICS:				
Landfor Slope (	cm: <u>Smoot</u> Configur	h, infrequent ation: <u>Convex</u>	ly dissected mo	Sit		50 to 100 %
Parent Soil De	epth:(cm	l: <u>Colluvium/</u>	oil Texture: S	ilt loam/gravelly	silt loam	1
Stand I Stand I Potent:	Examinat History: Lal Wind	Wind process throw Hazard:	es appear to be	econ of area done the major stand		
	Structur			%WH %MH Uneven aged stan		
Ave. Di	BH (tree	s 5+" DBH):	in. Ave. T	sq.ft. Ave. A PA (trees 5+" DBH devil's club.	):	yr.
SUMMARY Soils extreme	by Spec  Y OF OTH  - Unit h  - mass m	ies: H  ER RESOURCES  as mostly higo ovement as sh	MBF AC  AND VALUES:		MBF	_

Forest Plan: VCU 236 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of windthrow preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration	n Treatmen	ts:_Cl	earcut	t har	vest	follo	wed	by	natu	ral red	generat	io	n.
Hemlock is	anticipate	d to r	egene	rate	over	most	of	the	unit	. Spri	ce wil	1	suc-
cessfully re	egenerate	where	soil d	distu	ırbanc	e suf	fic	ient	to	expose	minera	al	soil
occurs.													

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is leat desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:_	No tre	atments	planned	at	this	time.	
				<u> </u>	_			

Transportation System: Road existing. Construct landing west of Rd. #7540 for helicopter logging.
Logging System: Designed for helicopter. Recommended landing is located southward off of road 7540.
Unit Boundary: Layout boundaries for windfirmness. Avoid extreme hazard soils.
Streamside Management: No concerns.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.  Refer to marking guide for instructions for marking.
Erosion Control: Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landings.  Fuel Treatment: None prescribed.
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.
Commercial Thinning: Option for commercial thinning due to high site quality; consider economics of helicopter thinning during evaluation.
Final Harvest: Evaluate for harvest 95-100 years after harvest.

# MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.

Prepared By: William R. Dougan

\_\_\_\_ Date: <u>08 /01 /92</u>

Certified By:

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 1130 of the SE Chichagof Timber Sale
STAND #_123, VCU 236 MANAGEMENT AREA C37
ACRES 31 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>43</u> Photo #'s <u>284-189</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 720 to 1450 ft. Aspect: SW to NW Slope: to 100+ %  Landform: Smooth infrequently dissected mountainslopes / mountainslope ravines.  Slope Configuration: Convex Site Index (Farr): 90  Plant Association: Western hemlock/blueberry and western hemlock/blueberry/ devil's club.  Soil: SMU = 3525E, 3779E.  Parent Material: Colluvium / residuum  Soil Depth: (cm) 40 & 150 Soil Texture: Silt to sandy loam to gravelly silt loam  Potential of Mass Failure: Moderate to high  STAND CHARACTERISTICS:
Stand Examination: Type None (Aerial recon of stand done) Date 07/18/90 Stand History: Wind/slide processes appear to be major stand processes  Potential Windthrow Hazard: Moderate  Damaging Agents: None detected during recon.
Species Composition (trees 5+" DBH):
Ave. Height:ft. Basal Area:sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees 5+" DBH):  Ground Cover: 35%-80% blueberry; 5%-15% devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1204 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Wildlife - High quality (HSI=1.0) brown bear habitat is located to the south.  Avoid expansion in this area upon verifying mapped high rating.  Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of ex-
treme mass movement hazard as shown on photo. Fall trees away from v-notches and remove any slash or debris introduced into them.
Visuals - Blend boundaries with topographic features and natural openings.  Fisheries, Hydrology - No concerns.

Forest Plan: VCU 236 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of windthrow preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's Letter to Regional Foresters and Station Directors dated June 4, 1992).

Transportation System: Existing road. Construct landing for he	licopte	er logging.
		**************************************
Logging System: Designed for helicopter. Recommended landing is northwestward off of road 7540. Require directional felling a v-notches. Western boundary is located at the existing clearce	way fro	
Unit Boundary: Western boundary is located along existing clea	rcut.	Avoid
extreme hazard soils.  Streamside Management: No concerns. Directionally fall away f	rom v-r	notches.
Wildlife Management: Avoid expansion into the high quality brothe S of the unit upon verification of the mapped high quality Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Directional felling away from v-notches. Hel will minimize soil disturbance. Close, drain, and grass-seed Fuel Treatment: None prescribed.	ratino al dive	ersity.
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: Evaluate for PCT 14-16 years after har on results of PCT exam.  Commercial Thinning: Option exists for commercial thinning due quality; consider economics of helicopter thinning during eval Final Harvest: Evaluate for harvest 95-100 years after harvest	to hic	gh site
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam		RD Silv.
	-	
Prepared By: William R. Dougan Date: 08	/01 /9	02
Certified By: Millux R. Onlyn Date: 08  Certified Silviculturist	/01 /9	22_

UNIT # 1140 of the SE Chichagof Timber Sale STAND # 407 VCU 239 MANAGEMENT AREA C37 ACRES 8 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-173 Scale: 1:12000 1/4 Quad ID: SITC4NE SITE CHARACTERISTICS: Elevation: 650 to 1200 ft. Aspect: SW Slope: 80 to 100 % Landform: Smooth, frequently dissected mountainslopes. Site Index (Farr): 65 Slope Configuration: Convex Plant Association: Western hemlock/blueberry. Soil: SMU = 3149E Parent Material: Colluvium/residuum Soil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly loam. Potential of Mass Failure: Moderate STAND CHARACTERISTICS: Stand Examination: Type None (Aerial recon of area done) Date 07/18/90 Stand History: Wind/slide processes appear to be major stand processes Potential Windthrow Hazard: Moderate Damaging Agents: None detected during recon. Species Composition (trees 5+" DBH): \_\_70 %WH \_\_%MH %AC 30 %SS Stand Structure: 75%-90% canopy closure. Uneven aged hemlock/spruce stand. Ave. Height: \_\_\_\_ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): \_\_\_\_ in. Ave. TPA (trees 5+" DBH):\_\_\_\_\_ Ground Cover: 80% blueberry. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 317 MBF Volume by Species: H \_\_\_\_MBF AC \_\_\_MBF SS \_\_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and the likelihood of blowdown preclude partial cut as an option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments:	Clearcut harvest followed by natural regeneration.	
Hemlock is anticipated t	o regenerate over most of unit; spruce will likely be	a
minor component, confine	d to areas adjacent to streams and areas where soil di	s-
turbance is sufficient t	o expose mineral soil.	

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments: No	treatments	planned a	at this	time.	
					· ·	

Transportation System: Existing road. Construct landing for near existing road.	or helicop	ter logging
Logging System: Designed for helicopter. Recommended landing	na is loca	ated
southward off of road 7540. Require directional felling as		
Unit Boundary: Incorporate TTRA buffer on Class II stream : Layout boundary for windfirmness. Avoid extreme hazard so Streamside Management: No concerns. Protect v-notches and	ils.	
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structions for marking quide for instructions for marking.  Erosion Control: Directional felling along v-notches and C. Helicopter yarding will minimize soil disturbance. Close, Fuel Treatment: None prescribed.	lass II st	ream.
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		,
Precommercial Thinning: None prescribed nor anticipated.  Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after har	vest.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest Certification of natural regeneration 4-6 years after harve Check for blowdown timber annually each spring Monitor TTRA buffer for effectiveness, windfirmness	KV est KV	RD Silv. RD Silv. RD Silv. Fish/Hydro
Prepared By: William R. Dougan Date	: 08 /01 /	92
Certified By: Millim Continue Date  Certified Silviculturist	: 08 /01 /	92

UNIT #1141 of the SE Chichagof Timber Sale
STAND #156,166,238, VCU 239 MANAGEMENT AREA C37 407, 411
ACRES 32 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>44</u> Photo #'s <u>284-173</u> Scale: 1:12000
1/4 Quad ID: SITC4NE
SITE CHARACTERISTICS:
Elevation: 700 to 1600 ft. Aspect: S to SW Slope: 80 to 100 %  Landform: Smooth frequently and infrequently dissected mountainslopes.  Slope Configuration: Convex Site Index (Farr): 67
Plant Association: Western hemlock/blueberry and western hemlock/blueberry/
devil's club.
Soil: SMU = 3549E, 3149E  Parent Material: Colluvium/residuum
Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam.
Potential of Mass Failure: Moderate
STAND CHARACTERISTICS:
Stand Examination: Type None (Aerial recon of area done) Date 07/18/90
Stand History: Wind/slide processes appear to be the major stand processes  Potential Windthrow Hazard: Moderate
Damaging Agents: None detected during recon.
Species Composition (trees 5+" DBH): 70 %WH %MH %AC 30 %SS Stand Structure: 75%-90% canopy closure. Uneven aged hemlock/spruce stand.
Ave. Height:ft. Basal Area:sq.ft. Ave. Age: _150+ _yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: _80% blueberry.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1083 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of ex-
treme mass movement hazard as shown on photo.
Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream within unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood os blowdown and need to encourage spruce regeneration preclude partial cut option. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of desired trees that are shade intolerant (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
excent pobblists. Avoid marking misciccoed hemioex for recention.
Intermediate Treatments: No treatments planned at this time.
Intermediate freatments. No treatments planned at this time.

Transportation System: Existing road. Construct landing for he near road.	elicopt	er logging
Logging System: Designed for helicopter. Recommended landing is southwestward off of road 7540. Require directional felling as y-notches.		
Unit Boundary: Area of extreme hazard soils located within unidetermined to be ext. haz., leave as a no harvest area. Provide		
boundary. Avoid extreme hazard soils.  Streamside Management: No concerns. Class III stream located w	ithin u	ınit.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure. Refer to marking quide for instructions for marking.  Erosion Control: Directional felling along v-notches/Class III ter yarding will minimize soil disturbance. Close, drain, and Fuel Treatment: None prescribed.	stream	m. Helicop-
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.	-	
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	kv	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92_
Certified By: Milliam Coulding Date: 08	/01 /9	92

UNIT # 1150 of the SE Chichagof Timber Sale

STAND #237-241,410,412 VCU 239 MANAGEMENT AREA C37

ACRES 31 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1984 Flight Line 44 Photo #'s 284-173 Scale: 1:12000 1/4 Quad ID: SITC4NE
SITE CHARACTERISTICS:
Elevation: 580 to 1750 ft. Aspect: SE Slope: to % Landform: Smooth, frequently dissected mountainslopes / mountainslope ravines. Slope Configuration: Convex Site Index (Farr): 79 Plant Association: Western hemlock/blueberry.
Soil: SMU = 3151D, 3779E,3149E
Parent Material: Colluvium/residuum  Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam / sandy loam.  Potential of Mass Failure: Moderate to high
STAND CHARACTERISTICS:
Stand Examination: Type None (Aerial recon of area done)  Stand History: Wind/slide processes appear to be the major stand processes  Potential Windthrow Hazard: Moderate  Damaging Agents: None detected during recon
Species Composition (trees 5+" DBH): 60-80 %WH 20-40 %MH %AC 20 %SS Stand Structure: 75%-80% canopy closure. Uneven aged hemlock stand with small amount of spruce.
Ave. Height: 50-70 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 40%-80% blueberry.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1081 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Visuals - Make limited adjustments to soften side boundaries.  Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of mass movement hazard, fall away from v-notches along SE and W boundaries.  Hydrology - Protect v-notch on W side, concern due to blowdown potential. If notch incision is > 50 ft., trees < 2/3 of length within notch may be felled away from channel and yarded out. BMP 13.16.
Fisheries, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III channels adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut.

Clearcut with reserve trees will minimize adverse impacts of windthrow and provide for establishment and growth of desirable shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

Transportation System: Existing road. Need to construct landing logging near road.	ng for	helicopter
Logging System: Designed for helicopter. Recommended landing is southwestward off of road 7520. Require directional felling as		
v-notches. Southern boundary is existing clearcut.		
Unit Boundary: Make limited adjustment to soften straight-edge boundaries. Southern boundary is existing clearcut. Locate boundary		
slope break along v-notches. Avoid extreme hazard soils.  Streamside Management: Channel protection of the v-notch on west a concern due to blowdown potential. Objective: streambank sta	ability	
wildlife Management: See Reserve Trees.	5	
Reserve Trees: 2 snags per acre left for wildlife and structural Refer to marking guide for instructions for marking.  Erosion Control: Directional felling along v-notches. Helicope minimize soil disturbance. Close, drain, and grass-seed landing Fuel Treatment: None prescribed.	ter yaı	
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check for blowdown timber annually each spring  Monitor v-notch on west side of unit for ravelling	KV KV	RD Silv. RD Silv. RD Silv. Hydrology
Prepared By: William R. Dougan Date: 08	/01 /9	92_
Certified By: Millim R. Dollun Date: 08  Certified Silvidulturist	/01 /9	92

UNIT # 1160 of the SE Chichagof Timber Sale
STAND # 233 VCU 239 MANAGEMENT AREA C37
ACRES 7 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>45</u> Photo #'s <u>284-131</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 650 to 1200 ft. Aspect: S Slope: 75 to 140 Landform: Smooth, frequently dissected mountainslopes and mountainslope ravines. Slope Configuration: Convex Site Index (Farr): 74 Plant Association: Western hemlock/blueberry/devil's club and western hemlock/blueberry/shield fern. Soil: SMU = 3779E, 3225E Parent Material: Colluvium / residuum Soil Depth: (cm) 25-40&150 Soil Texture: Silt and sandy loam / gravelly silt load Potential of Mass Failure: Moderate to high  STAND CHARACTERISTICS: Stand Examination: Type None (Aerial recon of area done) Date 07/18/9 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate to high Damaging Agents: None detected during recon
Species Composition (trees 5+" DBH): %WH %MH %AC %SS Stand Structure: Uneven aged hemlock stand with minor component of spruce.
Ave. Height:ft. Basal Area:sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees 5+" DBH):
Ground Cover: 35%-50% blueberry; 5%-15% Devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 266 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo.
Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Existing road. Construct helicopt Rd. #7520.	er loc	gging l	landing near
Logging System: Designed for helicopter. Recommended land southward off of road 7520. Require directional felling Southern boundary is existing clearcut.			
Unit Boundary: Southern boundary is existing clearcut. A	void e	extreme	e hazard
Streamside Management: No concerns. Class III streams lo Require directional felling along v-notches.	cated	adjace	ent to unit.
Wildlife Management: See Reserve Trees.			
Reserve Trees: 2 snags per acre left for wildlife and str Refer to marking quide for instructions for marking. Erosion Control: Require directional felling along v-note ing will minimize soil disturbance. Close, drain, and gr Fuel Treatment: None prescribed.	hes.	Helico	opter yard-
Planting: None prescribed.			
Animal Damage Control: None prescribed.			
Vegetation Management: None prescribed nor anticipated.			
Precommercial Thinning: None prescribed nor anticipated.			
Commercial Thinning: None prescribed nor anticipated.			
Final Harvest: Evaluate for harvest 95-100 years after ha	rvest	•	
MONITORING PLAN:			
Activity and Date		Fund	Who
Natural regeneration exam 4-5 years after harvest		KV	RD Silv.
Certification of natural regeneration 4-6 years after har Check for blowdown timber annually each spring	vest	KV	RD Silv.
Prepared By: William R. Dougan Dat	e: <u>08</u>	/01 /9	92_
Certified By: William Down Dat  Certified Silviculturist	e: <u>08</u>	/01 /9	92_

	UNIT # 1161	of the <u>SE Chicha</u>	agor Timber	Sale	
STA	AND #233	vси <u>239</u>	MANAGEMENT	AREA C37	_
ACRES 6	Determined Hov	w:_GIS	By Whom: T	.Falkner	Date: 1991
Aerial Photo: Scale: 1:1200 1/4 Quad ID:_	0	Flight Line <u>45</u>	Photo #'s	284-131	
SITE CHARACTE	RISTICS:				
Landform: Smo Slope Configu Plant Associa blueberry/shi Soil: SMU: 32 Parent Materi Soil Depth:(c	oth, frequently ration: Convex tion: Western her eld fern.  25E al: Colluvium /	mlock/blueberry/d residuum il Texture: Silt	inslopes. Site	Index (Fa	hemlock/
Stand History Potential Win	tion: Type <u>Nor</u> : <u>Wind/slide pro</u> dthrow Hazard: <u>N</u>	ne (Aerial recon ocesses appear to Moderate ed during recon			
_	·	+" DBH): <u>%</u> Whemlock with sma			<u>*</u> SS
Ave. DBH (tre	es 5+" DBH):	Basal Area: so in. Ave. TPA ( 5%-15% devil's	trees 5+" DBH)		yr.
		MBF Tot BF ACME			E
Soils - Unit extreme mass Fisheries - N C.III v-notch	movement hazard o concerns.	hazard soils. E as shown on phot Hydrology - Maint f unit; BMP 13.16	co. ain unit bound		
	JOI.10011115.				

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream along east boundary.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Existing road. Construct landing for helicopter loggin	ıg
near road 7520.	
Logging System: Designed for helicopter. Recommended landing is located	
southwestward off of road 7520. Require directional felling away from v-notch	
Existing clearcut is the southern boundary.	1.
Existing Clearcut is the southern boundary.	
Unit Boundary: Avoid extreme hazard soils. Existing clearcut is the southern	1
boundary. Maintain unit bdry to slope break of CIII v-notch on east side of un	nit
Streamside Management: No concerns. Class III stream v-notch is located along	7
unit boundary on east side of unit.	
Wildlife Management: See Reserve Trees.	
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.	
Refer to marking guide for instructions for marking.	
Erosion Control: Directional felling away from v-notches. Helicopter yarding	
will minimize soil disturbance. Close, drain, and grass-seed landing(s).	
Fuel Treatment: None prescribed.	
Planting: None prescribed.	
Animal Damage Control: None prescribed.	
Vegetation Management: None prescribed nor anticipated.	
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base need	aƙ
on PCT exam results.	
Commercial Thinning: Option exists due to high site quality; consider economic	cs
of helicopter thinning during evaluation.	
Final Harvest: Evaluate for harvest 95-100 years after harvest.	
MONITORING PLAN:	
Activity and Date Fund Who	

Activity and Date		Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: \_\_\_\_\_\_ Date: 08 /01 /92

	UNIT # 1162	of the <u>SE Chichag</u>	or rimber sare	
STAND	233	vcu <u>239</u>	MANAGEMENT AREA C37	_
ACRES 28	Determined Ho	w:_GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: <u>SI</u>		Flight Line <u>45</u>	Photo #'s <u>284-13:</u>	L
SITE CHARACTERI	STICS:			
Landform: <u>Infreq</u> Slope Configura	. dissected f tion: <u>Convex</u> on: <u>Western h</u>	tslopes/mountainslo	to SE Slope: Slope: Site Index (Pevil's club and wester	g-avalanches. Farr): 95
Soil: <u>SMU = 512</u> Parent Material Soil Depth:(cm)	1B, 3002E : Colluvium / 150 So		ly silt loam / sandy :	loam.
STAND CHARACTER		ow to moderate		
Stand History: <u>W</u> Potential Windt	ind/slide pro hrow Hazard:_	cesses appear to be Moderate	f area done) I e the major stand prod	
Damaging Agents	: None detect	ed during recon		
		+" DBH): %WH hemlock with mino		<u></u> %SS
Ave. DBH (trees	5+" DBH):		ft. Ave. Age: 150+ rees 5+" DBH): 's club.	yr.
		MBF Tota BF AC MBF	l Unit Vol: 1138 MM SSMBF	<u>3F</u>
SUMMARY OF OTHE		···	wn bear habitat to the	e south.
Avoid expansion	of the unit	into this area upor	n verification of high	h rating.
			sure boundary avoids a	areas of
		as shown on photo		
<u>Visuals - Make</u> <u>Fisheries, Hydr</u>		tments to soften so	outhern boundary.	
		HOOLIIS.		

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II and III streams within and adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

Transportation System: Construct landing for helicopter loggin	g near	road 7520.	
Logging System: Designed for helicopter. Recommended landing i	s locat	ted	
southward off of road 7520. Require directional felling away			
Southwest boundary is located at the existing clearcut.			
<u> </u>			
Unit Boundary: Soften straight-edge effect of southern boundar	y. Sou	uthwest	
boundary is located at the existing clearcut. Avoid extreme h	azard s	soils.	
Streamside Management: No concerns. Directional felling away	from v	-notch.	
Class III stream located within east side of unit.			
Wildlife Management: See Reserve Trees.			
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.	
Refer to marking guide for instructions for marking.			
Erosion Control: Directional felling along v-notches. Helicop		rding will	
minimize soil disturbance. Close, drain, and grass-seed landi	ng(s).		
Fuel Treatment: None prescribed.			
Displant News and had			
Planting: None prescribed.			
Animal Damage Control: None prescribed.			
Animal bamage concrot: None prescribed.			
Vegetation Management: None prescribed nor anticipated.			
vegetation Management. None prescribed nor anticipated.			
Precommercial Thinning: Evaluate for PCT 14-16 years after har	vest.	Base needs	
on results of PCT exam.	<u>, , , , , , , , , , , , , , , , , , , </u>		
Commercial Thinning: Option exists due to high site quality; c	onside	r economics	
of helicopter thinning during evaluation.			
Final Harvest: Evaluate for harvest 95-100 years after harvest	•		
MONITORING PLAN:			
Activity and Date	Fund	Who	
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.	
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.	
Check for blowdown timber annually each spring		RD Silv.	
PCT exam 14-16 years after harvest		RD Silv.	
PCT 16-18 years after harvest, based on results of PCT exam		RD Silv.	
Prepared By: William R. Dougan Date: 08 /01 /92			
Certified By: Millum R. Doullyn Date: 08	100	20	
Certified By: Date: 08	/01 /9	92_	

Certified Silviculturist

## INTEGRATED SILVICULTURE PRESCRIPTION Page 1 of 3

UNIT # 1200 of the SE Chichagof Timber Sale STAND #250,252,256 VCU 239 MANAGEMENT AREA C37 ACRES 23 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1984 Flight Line 46 Photo #'s 284-48 Scale: 1:12000 1/4 Quad ID: SITC3NW SITE CHARACTERISTICS: \_\_\_ Slope: 30 to 55+ % Elevation: 1400 to 1900 ft. Aspect: SE Landform: Broken mtslopes & hillslopes/mtslopes with mass wasting & avalanching. Slope Configuration: Convex Site Index (Farr): 71 Plant Association: Mountain hemlock/blueberry and western hemlock/blueberry/ devil's club. Soil: SMU = 3636C, 3002EParent Material: Colluvium / residuum Soil Depth: (cm) 33 & 150 Soil Texture: Silt loam. Potential of Mass Failure: Low to high STAND CHARACTERISTICS: Stand Examination: Type None (Walk-thru of area done) Date 07/18/90 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate to high Damaging Agents: Some forked tops, crooks and pistol butting. Areas of high defect. Blowdown scattered throughout area. Species Composition (trees 5+" DBH): \_\_\_\_\_%WH 80-90 %MH \_\_\_\_%AC 5-15 %SS Stand Structure: 60%-70% canopy closure; Not much understory. Uneven aged hemlock stand with minor amounts of spruce. Ave. Height: 50-100ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 30%-40% blueberry; 5%-15% devil's club. Total Net Sawlog Vol/Acre:\_\_\_\_ MBF Total Unit Vol: 639 MBF Volume by Species: H MBF AC MBF SS MBF SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from v-notches and remove any slash or debris introduced into them. <u>Visuals - Blend boundaries with topographic features and natural openings.</u> Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. General decadence of overstory and likelihood of blowdown preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of the unit. Spruce will likely be a minor component in new stand, restricted to areas where sufficient soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

 ireacmencs	No treatments	pranned at	LIIIS	cime.	

Transportation System: Construct landing for helicopter logging	g near	road 7520.
Logging System: Designed for helicopter. Recommended landing is southwestward off of road 7520. Require directional felling a v-notches.		
Unit Boundary: Blend with topographic features and natural open windfirmness. Avoid extreme hazard soils.  Streamside Management: No concerns. Directional felling away:		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structural Refer to marking quide for instructions for marking.  Erosion Control: Require directional felling away from v-notched yarding will minimize soil disturbance. Close, drain, and grass Fuel Treatment: None prescribed.	es. He	elicopter
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92
Certified By: Milliam R. Bougan Butc. 50  Certified Silviculturist		

UNIT # 1210 of the SE Chichagof Timber Sale

STAND #30,49,120 VCU 239 MANAGEMENT AREA C37

ACRES	109	Determined H	low: GIS	Ву Г	Whom: T. Falkner	Date: 1991
Scale:	Photo: 1:12000 ad ID: <u>S</u>		Flight Line <u>4</u> —	4 Phot	o #'s <u>284-171</u>	
SITE C	HARACTER:	ISTICS:				
Landfo Slope Plant shield Soil:_ Parent	rm: Smoot) Configura Associate fern. SMU = 352 Materia	n, infrequent ation: Convex ion: Western 25D, 3649E, 3 1: Colluvium	hemlock/blueber 6621D / residuum	untainslopes	s/broken mounta _ Site Index (Fern hemlock/blu	ainslopes. Farr): 91 ueberry/
	- '	) <u>40 &amp; 150</u> S ass Failure:	Soil Texture: <u>Si</u>	lt loam / gr	ravelly silt lo	oam.
rocenc	Idi Ol Ma	ass rallure:_	TOM			
STAND	CHARACTE	RISTICS:				
Stand Potent Damagi	History:	Wind/slide pr throw Hazard: s: Some dead	None (Aerial rec rocesses appear Moderate to hi Notestation tre	to be the magh	ajor stand prod	cesses
Stand	Structur	e: 70%-90% c	5+" DBH): 85 canopy closure. nounts of spruce	Understory		
Ave. D	BH (tree	s 5+" DBH):	Basal Area:in. Ave. TP			yr.
			MBF AC			<u>3F</u>
Soils photo.	- Ensure Fall t	rees away fro	and values:  oids areas of exomethe many v-no	tches that		

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and overall decadence of overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to reqenerate over entire unit; spruce will likely be a
minor component in stand , confined to areas where soil disturbance is suffic-
ient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is codar/spruce: hemlock is least

and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

	<u> </u>

Transportation System: Construct landing near existing road 75	42.	
		•
Logging System: Designed for helicopter. Recommended landing is	s locat	ted
southward off of road 7542. Require directional felling away	from v	-notches.
Whit Poundamy Tayout boundamy for windfirmnogg Avoid outrom	- h.g.	nd acila
Unit Boundary: Layout boundary for windfirmness. Avoid extreme	e naza.	rd solls.
Streamside Management: No concerns. Class III stream adjacent	to un	it on west
side.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure	al div	ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Directional felling along v-notches. Helicop	ter ya:	rding will
minimize soil disturbance. Close, drain, and grass-seed landing		
Fuel Treatment: None prescribed.		
Planting: None prescribed.	•	
Animal Damage Control: None prescribed.		
Animal bamage concret: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: Evaluate for PCT 14-16 years after hard	vest.	Base needs
on results of PCT exam.		
Commercial Thinning: Option exists based on high site quality; ics of helicopter thinning during evaluation.	consid	der econom-
Final Harvest: Evaluate for harvest 95-100 years after harvest		
2 add obc. Evaluace for harvest 75 100 years after harvest	•	
MONITORING PLAN:		
	1	1
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring	N.V.	RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.
		ND DIIV.

Prepared By: William R. Dougan

\_\_\_\_\_ Date: <u>08 /01 /92</u>

Certified By: William

Certified Silvigulturist

Date: 08 /01 /92

UNIT # 1220 of the SE Chichagof Timber Sale STAND #30,39,40 VCU 239 MANAGEMENT AREA C37 Determined How: GIS ACRES 26 By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1989 Flight Line 43C Photo #'s 2284-107 Scale: 1:12000 1/4 Quad ID: SITC4NE SITE CHARACTERISTICS: Elevation: 1180 to 1450 ft. Aspect: S to SE Slope: 20 to 40 % Landform: Gently sloping lowlands and mountainslopes with mass wasting-avalanches Slope Configuration: Convex Site Index (Farr): 40 Plant Association: Sitka spruce/blueberry, western hemlock/blueberry-devil's club and mixed conifer/blueberry/deer cabbage. Soil: SMU = 6174B, 3002EParent Material: Colluvium/ablation till Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam and silt loam. Potential of Mass Failure: Low to high STAND CHARACTERISTICS: Stand Examination: Type None (Aerial recon of area done) Date 07/16/90 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate to high Damaging Agents: None noted during recon. Species Composition (trees 5+" DBH): 40-60%WH %MH %AC 40-60%SS Stand Structure: 50% canopy closure. Uneven aged stand of spruce and hemlock. Appears to be a high volume stand, generally good form. Ave. Height: 120 ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): \_\_\_\_ in. Ave. TPA (trees 5+" DBH):\_\_\_\_ Ground Cover: 60%-80% blueberry; 5%-15% devil's club. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 935 MBF Volume by Species: H MBF AC MBF SS MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Fall trees away from stream along south boundary. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor stand component, although adequate seed sources exist, unless sufficient
soil disturbance occurs to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

# INTEGRATED SILVICULTURE PRESCRIPTION Page 3 of 3

Transportation System: Construct landing near road 7542.		
Logging System: Designed for helicopter. Recommended landing i	s locat	ed
southeastward off of road 754221; provided, there is enough ro		
operations. Otherwise, a longer flight to a landing further e	astward	d on the
road would be necessary. Fall trees away from stream on S sid	e.	
Unit Boundary: Provide for windfirm boundary. Class III strea	m locat	ed along
SW boundary of unit.		
Streamside Management: No concerns. Directional felling along	Class	III stream.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Directional felling along Class III stream.	Helico	oter yarding
will minimize soil disturbance. Close, drain, and grass-seed		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
	1	
Activity and Date	Fund_	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
	101 11	
Prepared By: William R. Dougan Date: 08	/01 /9	32_
Certified By: Mallan R. Occupin Date: 08  Certified Silviculturist	/01 /9	92_

UNIT # 1230 of the <u>SE Chichagof</u> Timber Sale
STAND # 27 VCU 239 MANAGEMENT AREA C37
ACRES 9 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1989</u> Flight Line <u>43</u> Photo #'s <u>2284-108</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 420 to 1200 ft. Aspect: NE Slope: 70 to 90  Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Convex Site Index (Farr): 85  Plant Association: Western hemlock/blueberry/shield fern and western hemlock/ blueberry/devil's club.  Soil: SMU = 3225E  Parent Material: Colluvium / residuum.  Soil Depth: (cm) 40 & 150 Soil Texture: Gravelly silt loam / silt loam.  Potential of Mass Failure: Moderate
Stand Examination: Type None (Aerial recon of area done)  Stand History: Wind/slide processes appear to be the major stand processes  Potential Windthrow Hazard: Moderate  Damaging Agents: Many dead tops seen.
Species Composition (trees 5+" DBH): %WH %MH %AC %SS Stand Structure: 80%-90% canopy closure. Uneven aged hemlock stand. Numerous v-notches across the stand.
Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH):  Ground Cover: 60%-70% blueberry; 5%-15% devil's club.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 365 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Ensure boundary avoids areas of extreme mass movement hazard as shown or photo.  Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and decadence of overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow/disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station\_\_\_\_ Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to reqenerate over the unit. In areas of sufficient soil
disturbance to expose mineral soil, spruce may regenerate in minor amounts.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.
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# <u>INTEGRATED SILVICULTURE PRESCRIPTION</u> Page <u>3</u> of <u>3</u>

Transportation System: Construct landing for helicopter logging	near	road /5422.
Logging System: Designed for helicopter. Recommended landing logging 75422, provided is enough room; otherwise, longer flight east to		
7542. Directional fell away from v-notches. Boundaries are at	exist	ing units
at north and east sides.		
Unit Boundary: Boundaries are on existing units at north and ea	ast sic	les.
Provide windfirm boundary. Avoid extreme hazard soils.		-
Streamside Management: No concerns. Directional felling along	v-note	ches.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structura	al dive	ersity.
Refer to marking guide for instructions for marking.		
Erosion Control: Directional felling along v-notches. Helicopt	ter yaı	cding will
minimize soil disturbance. Close, drain, and grass-seed landing	ng(s).	
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Programmorgial Thinnings Fundants for DCT 14-16 years often have		Paga pagda
Precommercial Thinning: Evaluate for PCT 14-16 years after hard on results of PCT exam.	vest.	Base needs
Commercial Thinning: Option due to high site quality; consider	oconor	nics of
helicopter thinning in evaluation.	econor	IIICS OI
Final Harvest: Evaluate for harvest 95-100 years after harvest		
advest bullated for harvest 75 100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring	I.V	RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.
Journ arear marvener base needs on ror exam resurts		ND DIIV.

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By: William

Certified Silviculturist

Date: 08 /01 /92

UNIT # 1240 of the SE Chichagof Timber Sale ACRES 30 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1989 Flight Line 43 Photo #'s 2284-108 Scale: 1:12000 1/4 Quad ID: SITC4NE SITE CHARACTERISTICS: Elevation: 450 to 1400 ft. Aspect: NE Slope: 70+ % Landform: Smooth frequent dissected mtslopes/mtslopes with mass wasting-avalanche Slope Configuration: Convex\_\_\_\_\_ Site Index (Farr): 88 Plant Association: Western hemlock/blueberry/devil's club and western hemlock/ blueberry/shield fern. Soil: SMU = 3225E, 3002E. Parent Material: Colluvium / residuum. Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam / gravelly silt loam. Potential of Mass Failure: Moderate to high STAND CHARACTERISTICS: Stand Examination: Type None (Aerial recon of area done) Date 07/16/90 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate Damaging Agents: Dead tops common. Species Composition (trees 5+" DBH): \_\_\_\_\_\_&WH \_\_\_\_&MH \_\_\_\_&AC \_\_\_&SS Stand Structure: 65% canopy closure. Snags are numerous and scattered through area. Uneven aged hemlock stand. Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 35%-65% blueberry. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1192

Volume by Species: H \_\_\_MBF AC \_\_MBF SS \_\_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES:

Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Fall trees away from v-notch

Fisheries, Hydrology, Wildlife - No concerns.

along north boundary.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and general decadence of overstory preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow/disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Construct helicopter landing near road 75422.
Logging System: Designed for helicopter. Recommended landing eastward on road
75422, provided enough room; otherwise, longer flight northeast to landing on
road 7542. Require directional fell away from v-notches.
Unit Boundary: Provide windfirm boundary. Class III and II channels located
along N-NW boundary. Avoid extreme hazard soils.
Streamside Management: No concerns. Incorporate TTRA buffer for Class II chan-
nel into boundary layout. Class III channel along N-NW boundary. Directional
felling along v-notches.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.
Refer to marking quide for instructions for marking.
Erosion Control: Directional felling along v-notches. Helicopter yarding will
minimize soil disturbance. Close, drain, and grass-seed landing(s)
Fuel Treatment: None prescribed.
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base needs
on results of PCT exam.
Commercial Thinning: Option due to high site quality; consider economics of
helicopter thinning during evaluation.
Final Harvest: Evaluate for harvest 95-100 years after harvest.

# MONITORING PLAN:

Activity and Date	Fund_	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro_

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By:

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 1260 of the SE Chichagof Timber Sale

STAND	#_78, 114_	VCU 239	MANAGEMENT AREA <u>C3</u>	7
ACRES 25 D	etermined How	:_GIS	By Whom: T. Falkner	Date: 1991
Aerial Photo: Y Scale: 1:12000 1/4 Quad ID: <u>SIT</u>		light Line <u>44</u>	Photo #'s <u>284-171</u>	
SITE CHARACTERIS	TICS:			
Landform: <u>Smooth,</u> Slope Configurat	frequently & ion: Convex	infrequently dis	Sto E Slope:Sected mountainslopes Site Index (F	
Soil: SMU = 3149 Parent Material: Soil Depth: (cm) Potential of Mas	Colluvium / 25-40 Soi	l Texture: Silt l	oam and gravelly loam.	
	n: Type <u>Non</u> nd/slide proc row Hazard: <u>M</u>	esses appear to boderate	of area done) Doe the major stand prod	
			H <u>% %</u> AC aged hemlock with mino	
	5+" DBH):	in. Ave. TPA (t	.ft. Ave. Age: 150+ crees 5+" DBH):	yr.
Total Net Sawlog Volume by Specie	Vol/Acre:MB	MBF Tota	al Unit Vol: 950 ME F SSMBF	3F
SUMMARY OF OTHER Visuals - Blend			eatures and natural ope	enings.
Soils - Unit has treme mass movem	mostly high ent hazard as	hazard soils. En shown on photo.	nsure boundary avoids a Fall trees away from	v-notch in
Hydrology - Main	tain unit bou		debris that is introductions of C.III v-notch of	
side of unit. B		serne		

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III channels within and adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Construct helicopter landing near road	7543.	
Logging System: Designed for helicopter. Recommended landing i southeast on road 7543. Require directional felling away from Class II stream buffer. East boundary is at existing clearcut	v-not	
Unit Boundary: Blend Boundary with topog. and natural openings. existing clearcut. Maintain unit boundary to slope break of C. south side of unit. Avoid extreme hazard soils.  Streamside Management: No concerns. Class III channels within unit; unit boundary meets Class II TTRA buffers on east side o  Wildlife Management: See Reserve Trees.  Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking. Erosion Control: Require directional felling along Class II/II copter yarding will minimize soil disturbance. Close, drain, &	East III v- and a f unit al div	djacent to . ersity. ams. Heli-
Fuel Treatment: None prescribed.  Planting: None prescribed.		•
Animal Damage Control: None prescribed.  Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest MONITORING PLAN:	•	
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest Certification of natural regeneration 4-6 years after harvest Monitor TTRA buffers for windfirmness, effectiveness Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. Fish/Hydro RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Millian Confidence Date: 08		

UNIT # 1270 of the SE Chichagof Timber Sale

STAND #78-80,82,437 VCU 239 MANAGEMENT AREA C37

ACRES 87 Determined How: GIS	By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1984 Flight Line 44 Scale: 1:12000	Photo #'s 284-169
1/4 Quad ID: <u>SITC4NE</u>	
SITE CHARACTERISTICS:	
Elevation: 380 to 1600 ft. Aspect: E to	SE Slope:40 to 100 %
Landform: Smooth frequently dissected mountainslop	
Slope Configuration: Convex	Site Index (Farr): 63
Plant Association: Western hemlock/blueberry and	mountain hemlock/blueberry/
<pre>copperbush. Soil: SMU = 3249E, 3149E, 3037E.</pre>	
Parent Material: Colluvium / residuum.	
Soil Depth: (cm) 25-40 Soil Texture: Silt loam	n / gravelly loam
Potential of Mass Failure: Moderate	
STAND CHARACTERISTICS:	
Stand Examination: Type None (Recon from rd. b	pelow stands) Date 07/18/90
Stand History: Wind/slide processes appear to be	the major stand processes
Potential Windthrow Hazard: Moderate	
Damaging Agents: None detected during recon	
Species Composition (trees 5+" DBH): %WH	
Ave. Height: ft. Basal Area: sq.ft. Ave. DBH (trees 5+" DBH): in. Ave. TPA (tree	
Ground Cover: 70-80% blueberry.	
	Jnit Vol: 3263 MBF SSMBF
SUMMARY OF OTHER RESOURCES AND VALUES:	
Soils - Unit has mostly high hazard soils. Ensur	re boundary avoids areas of ex-
treme mass movement hazard as shown on photo. Fa	
and remove any slash or debris introduced to them	1.
<u>Visuals - Blend boundaries with topographic feature</u>	
Wildlife - Mapped as high quality (HSI=1.0) brown	
expansion of unit into this area upon verification	on of high quality rating.
Fisheries and hydrology have no concerns.	

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II/III streams within and adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and likelihood of blowdown preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.	
								_

Transportation System: Construct helicopter landing near road	7543.	
Logging System: Designed for helicopter. Recommended landing is	s loca:	ted.
northeastward off of road 7543. Require directional felling a		
Unit Boundary: Blend with topo. features and natural openings.	Class	III channel
adjacent to south boundary. Avoid extreme hazard soils.		
Streamside Management: No concerns. Class III streams within	and ad	jacent to
unit. Class II TTRA buffer adjacent to unit in NE corner.		
Wildlife Management: High quality brown bear habitat east of u	ni+	Avoid ev-
pansion into this area upon verification of high qulaity rating		AVOIG EX-
Reserve Trees: 2 snags per acre left for wildlife and structur		ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Directional felling along v-notches and Class	II/II	I streams.
Helicopter yarding will minimize soil disturbance. Close, dra	in, an	d seed ldgs.
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /	92
Certified By: Millia Collan Date: 08	/01 /	92_

UNIT # 1290 of the SE Chichagof Timber Sale STAND #94,98,105 VCU 239 MANAGEMENT AREA C37 ACRES 21 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134 Scale: 1:12000 1/4 Quad ID: SITC3NW SITE CHARACTERISTICS: Elevation: 700 to 1450 ft. Aspect: W to NW Slope: 65 to 120 % Landform: Smooth frequent dissected mtslopes/mtslopes with mass wasting-avalanche Slope Configuration: Convex Site Index (Farr): 82 Plant Association: Western hemlock/blueberry/devil's club and western hemlock/ blueberry/shield fern. Soil: SMU = 3225E, 3002E Parent Material: Colluvium / residuum Soil Depth: (cm) 40 & 150 Soil Texture: Gravelly silt loam/silt loam/sandy loam. Potential of Mass Failure: Moderate to high STAND CHARACTERISTICS: Stand Examination: Type None (Recon of area from rd. done) Date 07/18/90 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate Damaging Agents: Old blowdown in area noted during recon. Stand Structure: 90% canopy closure. Uneven aged hemlock/spruce stand. Stand has some very large, older trees. Ave. Height: 100 ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 30%-65% blueberry; 5%-15% devil's club. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 718 Volume by Species: H \_\_\_\_MBF AC MBF SS MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - High hazard soils, especially in south half of unit. Fall trees away from v-notches and remove any slash or debris introduced into them. Ensure N/S boundaries above slope break of deep v-notch. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches and Class III channel along northern boundary.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Construct helicopter landing near road	7543.	
Logging System: Designed for helicopter. Recommended landing is		
northwest off of road 7543. Require directional felling away	from v-	-notches.
Western boundary is existing clearcuts.		
Unit Boundary: Western boundary is existing clearcuts. Class	III sti	ream located
near north boundary. Layout boundary for windfirmness.		1.1 6
Streamside Management: No concerns. Class III stream located	just no	orth of
unit.		
Wildlife Managements Coo Degame Trees		
Wildlife Management: See Reserve Trees.		
Pagarya Myanga 2 anaga nay naya laft fay wildlife and atweatur	21 44***	awai tu
Reserve Trees: 2 snags per acre left for wildlife and structure.  Refer to marking quide for instructions for marking.	al ulve	ELSILY.
Erosion Control: Directional felling along v-notches and along	Clacc	TIT stroam
on north end of unit. Helicopter yarding will minimize soil d		
Close, drain and seed landing(s).	ISCUIDO	ance.
Fuel Treatment: None prescribed.		
act treatment. None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest		
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92_
10.		
Certified By: Milliam C. Oulfan Date: 08	/01 /9	92_
Certified Silviculturist		

UNIT # 1300 of the SE Chichagof Timber Sale STAND #104-106,110 VCU 239 MANAGEMENT AREA C37 ACRES 28 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1984 Flight Line 45 Photo #'s 284-134 Scale: 1:12000 1/4 Quad ID: SITC4NE SITE CHARACTERISTICS: Elevation: 600 to 1600 ft. Aspect: SW to S Slope: 60 to 100+% Landform: Smooth, infrequently dissected mountainslopes/mountainslope ravines. Slope Configuration: Convex Site Index (Farr): 74 Plant Association: Western hemlock/blueberry and western hemlock/blueberrydevil's club. Soil: SMU = 3525E, 3549E, 3779E. Parent Material: Colluvium / residuum. Soil Depth: (cm) 25-40&150 Soil Texture: Silt loam / gravelly silt loam. Potential of Mass Failure: Moderate to high STAND CHARACTERISTICS: Stand Examination: Type None (Walk-thru of area done) Date 07/18/90 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate to high Damaging Agents: Old blowdown throughout area. Species Composition (trees 5+" DBH): 60 %WH 8MH 10 %AC 30 %SS Stand Structure: 90% canopy closure. Uneven aged hemlock/spruce with minor amount of cedar. Ave. Height: 100 ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): \_\_\_\_\_in. Ave. TPA (trees 5+" DBH):\_\_\_\_ Ground Cover: 40%-80% blueberry; 5%-15% devil's club. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 906 MBF Volume by Species: H \_\_\_MBF AC \_\_\_MBF SS \_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Unit has mostly high hazard soils. Ensure boundary avoids areas of extreme mass movement hazard as shown on photo. Ensure that north and south boundaries are above slope break of drainage. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III streams adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil. Cedar will be a minor component due to lack of seed sources and periodicity of regeneration success.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No t	reatments	planned	at	this	time.	 
						•		

Transportation System: Construct a helicopter landing near exist	sting :	road 7543.				
Logging System: Designed for helicopter. Recommended landing is						
westward off of road 7543. Require directional felling away from v-notches.						
Western boundary is existing clearcuts.						
Unit Boundary: Western boundary is existing clearcuts. Review	area 1	within unit				
(shown as out) for extreme hazard soils; include if not. Prov.	ide for	r windfirm-				
ness. Avoid extreme hazard soils.						
Streamside Management: No concerns. Class III streams located	to the	e north and				
south of unit boundary.						
Wildlife Management: See Reserve Trees.						
Reserve Trees: 2 snags per acre left for wildlife and structure	al div	ersitv.				
Refer to marking quide for instructions for marking.						
Erosion Control: Require directional felling along v-notches.	Helic	opter vard-				
ing will minimize soil disturbance. Close, drain, and grass-se						
Fuel Treatment: None prescribed.	<u> </u>					
Zudz Zzdzewcze. None preserrock.						
Planting: None prescribed.						
riancing. None prescribed.						
Animal Damage Control: None prescribed.						
Animal bamage concrot: None prescribed.						
Wantaking Wangarah, Nana ang ikada ang ankiningtad						
Vegetation Management: None prescribed nor anticipated.						
Precommercial Thinning: None prescribed nor anticipated.						
Commercial Thinning: None prescribed nor anticipated.						
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	<del></del>				
MONITORING PLAN:						
		•				
Activity and Date	Fund	Who				
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.				
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.				
Check for blowdown timber annually each spring		RD Silv.				
	1					
Prepared By: William R. Dougan Date: 08	/01 //	92				
Date: 00	/ 0 1 / .	<i></i>				
and no						
Certified By: Marin K. Journ Date: 08	/01 /	9.2				
Certified Silviculturist	701 /	<i>7 L</i>				
Cercified Silviculturist						

UNIT # <u>1310</u>	of the <u>SE Chicha</u>	gof Timber Sale
STAND # 113	VCU <u>239</u>	MANAGEMENT AREA <u>C37</u>
ACRES 3 Determined Ho	w: GIS	By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>	Flight Line <u>45</u>	Photo #'s 284-134
SITE CHARACTERISTICS:		
Elevation: 600 to 1000 ft.  Landform: Smooth frequently d Slope Configuration: Convex Plant Association: Western h	lissected mountain	slopes. Site Index (Farr): 66
Soil: SMU = 3249E		
Parent Material: Colluvium /	oil Texture: Silt	loam / gravelly loam
STAND CHARACTERISTICS:		
Stand History: Wind/slide proposition (trees 5	Moderate to high attered through a	rea.
		cupied by alder and salmonberry.
Ave. Height: 90 ft. Ave. DBH (trees 5+" DBH): Ground Cover: 70%-80% blue	in. Ave. TPA (	
Total Net Sawlog Vol/Acre:		
SUMMARY OF OTHER RESOURCES A	AND VALUES:	
	n hazard soils. E	nsure south boundary is above slope
break of v-notch.	60 No	
Fisheries, Hydrology, Wildli	Lie - No concerns.	

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect v-notches.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

## MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatments	planned at	this time.	
					-

Transportation System: Construct helicopter landing near road 7543.					
Logging System: Designed for helicopter. Recommended landing is northwestward off of road 7543. Require directional felling as Western boundary is located at existing clearcut.					
Unit Boundary: Western boundary is located at existing clearcu firm boundary.	t. La	yout wind-			
Streamside Management: No concerns. V-notch located along sou	th bour	ndary.			
Wildlife Management: See Reserve Trees.					
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking guide for instructions for marking.  Erosion Control: Directional felling along v-notch. Helicopte minimize soil disturbance. Close, drain, and grass-seed landi Fuel Treatment: None prescribed.	r yard	ing will			
Planting: None prescribed.					
Animal Damage Control: None prescribed.					
Vegetation Management: None prescribed nor anticipated.					
Precommercial Thinning: None prescribed nor anticipated.  Commercial Thinning: None prescribed nor anticipated.					
Final Harvest: Evaluate for harvest 95-100 years after harvest	•				
MONITORING PLAN:					
Activity and Date	Fund	Who			
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. RD Silv.			
Prepared By: William R. Dougan Date: 08		_			
Certified By: Date: 08	/01 /	92_			

UNIT # 1311 of the <u>SE Chichagof</u> Timber Sale
STAND #109,111,113 VCU 239 MANAGEMENT AREA C37
ACRES 41 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>45</u> Photo #'s <u>284-134</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NE</u>
SITE CHARACTERISTICS:
Elevation: 600 to 1200 ft. Aspect: SW to W Slope: 65 to 100+9 Landform: Smooth, frequently dissected mountainslopes.  Slope Configuration: Convex Site Index (Farr): 66 Plant Association: Western hemlock/blueberry and western hemlock/blueberry- devil's club.  Soil: SMU = 3249E Parent Material: Colluvium/residuum  Soil Depth: (cm) 25-40 Soil Texture: Silt loam / gravelly loam.  Potential of Mass Failure: Moderate
Stand Examination: Type None (Recon of area from rd. done) Date 07/18/90 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate to high Damaging Agents: Blowdown scattered through area.
Species Composition (trees 5+" DBH): 90 % H % AC 10 %SS Stand Structure: 80% canopy closure. Uneven aged stand of hemlock with minor amounts of spruce.
Ave. Height: 90 ft. Basal Area: sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 70%-80% blueberry.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1581 MBF Volume by Species: H MBF AC MBF SS MBF
Soils - Unit has mostly high hazard soils. Ensure that east boundary avoids area of extreme mass movement hazard as shown on photo, and that north boundary is above slope break of v-notch. Fall trees away from v-notches.  Fisheries, Hydrology, Wildlife - No concerns.
The second secon

Forest Plan: VCU 239 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety of uses, with emphasis on managing for uses and activities in a compatible and complementary manner to provide the greatest combination of benefits. These areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resoource. Protect Class II/III streams adjacent to unit.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be a
minor component, confined to areas adjacent to streams and areas where soil dis-
turbance is sufficient to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

Transportation System: Construct helicopter landing near road	7543.	
Logging System: Designed for helicopter. Recommended landing is northward (or southward) off of the 7543 road. Require direct from v-notches and Class II stream buffer. Western boundary clearcut.  Unit Boundary: Western boundary is existing clearcut. Class II boundary to the south. Provide windfirm boundary. Avoid extremside Management: No concerns. Class II TTRA buffer adjated south boundary. Class III streams along south/north boundary.	ional is exi /III s eme ha	felling away sting tream forms z. soils.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Directional felling along v-notches and Class Helicopter yarding will minimize soil disturbance. Close, dra Fuel Treatment: None prescribed.	II/II	I streams.
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	. •	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Monitor TTRA buffer for effectiveness, windfirmness  Check for blowdown timber annually each spring	KV	RD Silv. RD Silv. Fish/Hydro RD Silv.
Prepared By: William R. Dougan  Date: 08  Certified By: Milliam R. Dougan  Date: 08  Certified Silvidulturist		

UNIT # 1320 of the SE Chichagof Timber Sale 

ACRES 72	Determined H	ow:_GIS	By Whom: T. Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: <u>S</u>		Flight Line <u>45</u>	_ Photo #'s284-13	34
SITE CHARACTER	ISTICS:			
Landform: Smoot Slope Configur Plant Associat blueberry and Soil: SMU = 35 Parent Materia	h, infrequent ation: Convex ion: Western western hemlo 57C, 3643B, 3 l:Colluvium/r ) 150 So	hemlock/blueberry/shick/blueberry. 006E. esiduum/ablation till il Texture:Silt loam/	slopes/broken mounta Site Index (F eld fern, mixed coni over compact till.	ainslopes. Parr): 79 .fer/
STAND CHARACTE	RISTICS:			
Stand History: Potential Wind	Wind/slide pr throw Hazard:	None (Walk-thru of ar ocesses appear to be Moderate to high cattered through area	the major stand proc	
	e: 90% canopy	5+" DBH): 60 %WH closure. Uneven age		
Ave. DBH (tree	s 5+" DBH):	Basal Area: sq.ft in. Ave. TPA (tre eberry; <5% salmonbe	es 5+" DBH):	,
Total Net Sawl Volume by Spec		MBF Total MBF ACMBF		<u>BF</u>
<u>shown on photo</u> Visuals - Blen	south bounda d boundaries	and VALUES:  ry avoids area of ext  with topographic feat  ife - No concerns.		

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of unit; spruce will likely be a minor component, confined to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil. Cedar will likely be a minor component due to lack of seed sources and periodicity of regeneration success.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump and/or leave individual snags throughout the unit; consider windfirmness. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate		. <u></u>	40 01120	02.110.	

Transportation System: Construct helicopter landing near road 7	543.	
Logging System: Designed for helicopter. Recommended landing is off of road 7543. Require directional felling away from v-not stream buffer. Western boundary is at existing clearcut.		
Unit Boundary: Blend boundary with topo. and natural openings. is at existing clearcut. NE boundary adjacent to Class II TTRA extreme hazard soils. Streamside Management: No concerns. TTRA buffer adjacent to un	buff	
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structural Refer to marking quide for instructions for marking.  Erosion Control: Directional felling along Class II buffer and Helicopter yarding will minimize soil disturbance. Close, dra: Fuel Treatment: None prescribed.	v-not	ches.
Planting: None prescribed.  Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.  Precommercial Thinning: None prescribed nor anticipated.  Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest  MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Monitor TTRA buffer for effectiveness, windfirmness  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. Fish/Hydro RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Mallan Continue Date: 08	/01 /	92

UNIT # 1330 of the SE Chichagof Timber Sale

STAND #188, 202 VCU 239 MANAGEMENT AREA C37

ACRES 2	8	Determined Ho	ow: GIS		By Whom: T. I	<u>Falkner</u>	Date: 1991
Aerial P Scale: 1 1/4 Quad	:12000		Flight Line_	45	Photo #'s	284-132	
SITE CHA	RACTERI	STICS:					
Landform Slope Co Plant As olueberr Soil: SM Parent M	:Freque nfigura sociati y/shiel U = 523 aterial	ntly dissected tion: Convex on: Sitka spread fern and mid 4B, 3657C.	Aspected ftslopes/a	lluvial fa y-devil's blueberry alluvium	ans/broken r Site I seste	mountain& Index (Fa ern hemlo	whillslopes. arr): 89 ock/
		ss Failure: I	oil Texture:_:	Silt loam	/ gravelly	silt loa	am.
Stand Hi Potentia Damaging	aminati story: <u>W</u> l Windt Agents	on: Type Nind/slide prohrow Hazard:_ :Frost crack,	None (Walk-th: ocesses appea: Moderate , broken tops ow defect and	and mist	he major sta	and proce	esses
	ructure	: 90% canopy	5+" DBH):5				
Ave. DBH	(trees	5+" DBH):	Basal Area:in. Ave. 'oerry; <5% sa	TPA (tree:	s 5+" DBH):_		
			MBF AC				<u>₹</u>
Soils - photo.	Ensure		ids areas of				as shown on
risherie	s, Hydr	ology, Wildli	ife - No conce	erns.			

Forest Plan: VCU 239 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 3. These lands will be managed for a variety
of uses, with emphasis on managing for uses and activities in a compatible and
complementary manner to provide the greatest combination of benefits. These
areas have either high use or high amenity and commodity values.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Presence of mistletoe, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate over most of unit; spruce will likely be
confined to areas adjacent to streams and areas where sufficient soil distur-
bance occurs to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump and/or leave individual snags throughout
the unit; consider windfirmness. If inadequate snags exist, mark green trees
for retention to serve as recruitment trees for snags. Utilize live cull to the
extent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

### INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Construct helicopter landing near road 7543.
Logging System: Designed for helicopter. Recommended landing is located westward off of road 7543. Require directional felling away from Class II stream buffer. Locate boundary above cable-accessible ground.
Unit Boundary: Locate boundary above cable-accessible ground. SW boundary adjacent to Class II stream; incorporate TTRA buffer into unit layout. Avoid extreme hazard soils.
Streamside Management: No concerns. Class II stream located along SW boundary.
Wildlife Management: See Reserve Trees.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.  Refer to marking quide for instructions for marking.  Erosion Control: Directional felling along TTRA buffer. Helicopter yarding will minimize soil disturbance. Close, drain, and grass-seed landing(s).  Fuel Treatment: None prescribed.
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base needs on results of PCT exam.  Commercial Thinning: Option due to high site quality; consider economics of
helicopter thinning during evaluation.  Final Harvest: Evaluate for harvest 95-100 years after harvest.
MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on PCT exam results		RD Silv.

Prepared By: William R. Dougan \_\_\_\_\_ Date: <u>08 /01 /92</u>

Certified By: Certified Silviculturist \_\_\_\_ Date: <u>08 /01 /92</u> UNIT # 2770 of the <u>SE Chichagof</u> Timber Sale

ACRES 51	Determined H	ow: GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: Si		Flight Line 46	Photo #'s 284-53	
SITE CHARACTER	ISTICS:			
Landform: Broke Slope Configura Plant Associati fern and mixed Soil: SMU = 369 Parent Material Soil Depth: (cm)	en mountainslation: Convex con: Western conifer/blue 57D, 6174B colluvium/	hemlock/blueberry, weberry, weberry.  residuum/ablation tooll Texture: Gravel	Site Index (F western hemlock/bluebe	erry/shield
Potential of Ma		Low		
Stand History: Potential Winds	Wind process throw Hazard: s: High cull	es appear to be the High	stand 55 done) I major stand developmed, with cedar decline e	ent influence
Stand Structure	e: <u>Uneven age</u>		<u>%MH</u> <u>15</u> %AC nd with minor amounts ly to canopy gaps crea	
Ave. Height: 70 Ave. DBH (tree: Ground Cover:	s 5+" DBH): <u>12</u>	-30in. Ave. TPA (t:	ft. Ave. Age: 150+ rees 5+" DBH): 200	yr.
			l Unit Vol: 1832 ME SSMBF	<u>BF</u>
southeast. Ave Soils - There require full sensitive soil suspension.	n quality (HS  poid expansion  appears to be  uspension. N  s; Recommend	<pre>I=1.0) brown bear i   into this area.   a small stream in ortheast part of un</pre>	s located outside the settings 1 and 2 that it has wetness problem possible - otherwise	would ns and

Forest Plan: VCU 240 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarly on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III/II streams within and adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Decadence of overstory, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of the unit. Cedar and spruce will likely be minor components in the new stand. Cedar will be more successful in areas of wetter soils, while spruce will be successful in areas along streams and where adequate soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.	•	 

Transportation System: Accessed by road 75467.
Logging System: Designed for running skyline. Require directional felling away
from v-notches. Require partial suspension at a minimum for setting 4; full
suspension over small streams.
Unit Boundary: Provide windfirm boundary. NE corner of unit is adjacent to Class
II TTRA buffer. Class III stream forms north boundary.
Streamside Management: No concerns. Directional felling away from Class II/III
streams. TTRA buffer adjacent to unit.
Wildlife Management: High quality (HSI=1.0) brown bear located to the southeast
of the unit. Avoid expansion of unit into this area.
Reserve Trees: 2 snags per acre left for wildlife and structural diversity.
Refer to marking quide for instructions for marking.
Erosion Control: Partial suspension setting 4; full suspension over small
streams. Maintain drainage (culverts, ditches) on Rd. 75467.
Fuel Treatment: None prescribed.
The state of the s
Planting: None prescribed.
Animal Damage Control: None prescribed.
Vegetation Management: None prescribed nor anticipated.
Precommercial Thinning: Evaluate for PCT 14-16 years after harvest. Base needs
on result of PCT exam.
Commercial Thinning: Option due to high site quality. Evaluate 55-60 years
after harvest using stand exam.
Final Harvest: Evaluate for harvest 95-100 years after harvest.

### MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest, based on PCT exam results		RD Silv.
Evaluate comm. thin opportunity using stand exam 55-60 years		
after harvest		RD Silv.

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: Milliam V. Orugan Date: 08 /01 /92

Certified Silviculturist

# INTEGRATED SILVICULTURE PRESCRIPTION Page 1 of 3

UNIT # 2800 of the SE Chichagof Timber Sale

ACRES 51 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>46</u> Photo #'s <u>284-54</u> Scale: 1:12000 1/4 Quad ID: <u>SITC3SW</u>
1/4 Quad ID: SIICSSW
SITE CHARACTERISTICS:
Elevation: 400 to 900 ft. Aspect: SE to NW Slope: 5 to 95 % Landform: Smooth, infrequently dissected hillslopes.  Slope Configuration: Concave/even slope Site Index (Farr): 81  Plant Association: Western hemlock/blueberry, western hemlock/devil's club/ Schallow soils and western hemlock/yellow cedar/rusty menziesia.  Soil: SMU = 4451D, 5256B  Parent Material: Colluvium/residuum  Soil Depth: (cm) 25-40 Soil Texture: Silt loam to gravelly loam.  Potential of Mass Failure: Moderate to high.  STAND CHARACTERISTICS:  Stand Examination: Type R6 Quick Plot Type 11 Date 09/01/91  Stand History: Glacial moraine - scattered boulders. Old blowdown area.  Potential Windthrow Hazard: High.
Damaging Agents: <u>High cull and mortality. Pinicola common. Lots of snags and old blowdown.</u> Light mistletoe/forks/crooks and sweeps.
Species Composition (trees 5+" DBH): 93 %WH 0 %MH 4 %AC 3 %SS Stand Structure: Decadent older trees, with heavy downed trees. Good regen in heavy blowdown areas. Not much regen in brush/boulder areas. Uneven aged.
Ave. Height: 85-110ft. Basal Area: 260 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 16 in. Ave. TPA (trees 5+" DBH): 160-190  Ground Cover: 20%-40% blueberry, 5%-15% rusty menziesia and devil's club; <5% salmonberry and current.
Total Net Sawlog Vol/Acre: 27.2 MBF Total Unit Vol: 1666 MBF Volume by Species: H 24.4 MBF AC 0.7 MBF SS 2.1 MBF  SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Recommend partial suspension of the riparian soils along the northern boundaries of settings 3 and 4.
Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity. Unit Objectives: Provide volume to APC long term sale. Regenerate stand result-

ing in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserved trees and partial cut. Decadence/poor vigor of overstory, likelihood of blowdown and presence of mistletoe preclude partial cut. Attempts should be made to save advanced regeneration wherever possible, however. Clear-

cut with reserve trees will minimize adverse impacts of disease/windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce and cedar will likely be minor components, due to lack of seed sources. Where feasible, protecting advanced regeneration will add to structural and species diversity.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.	 

# <u>INTEGRATED SILVICULTURE PRESCRIPTION</u> Page <u>3</u> of <u>3</u>

Transportation System: Temporary spur accessing unit will be cand grass-seeded after harvest.	losed,	waterbarred
Logging System: Designed for running skyline and live skyline (EYD). Require partial suspension in settings 3 and 4. Requir felling away from Class II stream buffer.		
Unit Boundary: Provide windfirm boundary. Class II TTRA buffe corporated into unit boundary layout.  Streamside Management: No concerns. Class II stream adjacent boundary.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Partial suspension in settings 3 and 4. Dire along Class II stream buffer. Close, waterbar, and grass-seed Fuel Treatment: None prescribed.	ctiona	l felling
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Monitor TTRA buffer for effectiveness, windfirmness  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. Fish/Hydro RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Milliam C. Date: 08  Certified Silviculturist	/01 /9	92_

UNIT # 2820 of the <u>SE Chichagof</u> Timber Sale
STAND #17,18,32 VCU 240 MANAGEMENT AREA C37
ACRES 51 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>44</u> Photo #'s <u>284-167</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4SE</u>
SITE CHARACTERISTICS:
Elevation: 675 to 1050 ft. Aspect: S to SE Slope: 5 to 65 % Landform: Gently sloping lowlands/ smooth frequently & infreq. dissected mtslopes Slope Configuration: Convex Site Index (Farr): 62 Plant Association: Mixed conifer/blueberry/skunk cabbage, western hemlock/ blueberry and western hemlock/blueberry/shield fern. Soil: SMU = 6141B, 3545C, 3221D Parent Material: Colluvium/ablation till Soil Depth: (cm) 150 Soil Texture: Gravelly silt loam/loam Potential of Mass Failure: Low to moderate
STAND CHARACTERISTICS:
Stand Examination: Type None Date / / Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents:
Species Composition (trees 5+" DBH): %WH %MH %AC %SS Stand Structure: Uneven aged hemlock stand with minor amounts of spruce and cedar.
Ave. Height:ft. Basal Area:sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees 5+" DBH):  Ground Cover: 65%-80% blueberry.
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1476 MBF Volume by Species: H MBF AC MBF SS MBF  SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Recommend full suspension in the upper halves of settings 1, 3, and the northwestern part of setting 5 because of unstable soils.  Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit. Protect soil resource.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of unit; cedar and spruce will likely be minor components. Cedar should be successful in wetter areas, while spruce will likely be confined to areas adjacent to streams and where sufficient soil disturbance occurs to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatment	s planned	at this	time.	

### INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Accessed by road 7543.		
Logging System: Designed for running skyline. Require directi	onal fe	lling &
split yarding away from v-notches. Require full suspension i	n setti:	ngs 1, 3, &
5 due to high hazard soils; partial at minimum. Require dire	ctional	fell away
from Class II buffer.		
Unit Boundary: Provide windfirm boundary. Incorporate TTRA b	uffer i	nto boundary
layout.		
Streamside Management: No concerns. Class II stream adjacent	to uni	t
V-notches within unit.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structu	ral div	ersity.
Refer to marking guide for instructions for marking.		
Erosion Control: Full suspension in settings 1,3,5. Maintain	draina	ge (culverts
and ditches) on Rd. 7543.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harves	t.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Prepared By: William R. Dougan Date: O	8 /01 /	92_
Certified By: Milliam Cougan Date: O	8 /01 /	92_

UNIT # 2821 of the SE Chichagof Timber Sale

STAN	TD #_17, 18	VCU <u>240</u>	MANAGEMENT	AREA C37	_
ACRES 24	Determined Ho	ow:_GIS	By Whom: <u>T</u>	.Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: <u>S</u>		Flight Line <u>44</u>	Photo #'s	284-167	
SITE CHARACTER	ISTICS:				
Landform: Smoot Slope Configur Plant Associat blueberry/skun Soil: SMU = 32 Parent Materia Soil Depth: (cm	h frequently of ation: Convex ion: Western he cabbage. 21D, 6141B 1: Colluvium/r	Aspect:	nslopes/gently Site /shield fern and till elly silt loam.	sloping l Index (F d mixed c	owlands. arr): <u>79</u>
STAND CHARACTE	RISTICS:				
Potential Wind	Wind processe throw Hazard:	es appear to be t	he major stand		ate <u>//</u> nt influence
		5+" DBH):% d hemlock stand w		%AC ts of spr	%SS uce and
Ave. DBH (tree	s 5+" DBH):	Basal Area: so in. Ave. TPA perry; 5%-15% sk	(trees 5+" DBH)		yr.
Total Net Sawl Volume by Spec	og Vol/Acre: ies: HA	MBF TO	tal Unit Vol:	878 MB _MBF	F
SUMMARY OF OTH Soils - High h	azard soils; 1	recommend full su	spension on the	upper ha	lves of
settings 1 & 2	and partial s	suspension on the ife - No concerns	rest of the un	it.	

Forest Plan: VCU 240 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit. Protect soil resource.

Alternatives Considered: Regeneration treatments considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow and will provide for establishment of shade intolerant trees (refer to Items 4 and 5 Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate over most of the unit; spruce and cedar will likely be minor stand components, due to lack of seed sources. Spruce will be confined primarily to areas along streams and where soil disturbance exposes mineral soil; cedar will do well in areas of wetter soils.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.


Intermediate Treatments: No treatments planned at this time.

Transportation System: Accessed by road 75434.		
Logging System: Designed for running skyline. Require direction	nal fe	ll away from
v-notches and Class II stream buffer. Require full suspension		
and 2; partial suspension for rest of unit as a minimum due to		
soils.	mign	nazara
Unit Boundary: Provide for windfirmness. Incorporate TTRA buf	fer in	to houndary
layout.	LCI III	co boundary
Streamside Management: No concerns. Class II/III streams adja	cent t	o unit.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al div	ersity.
Refer to marking guide for instructions for marking.		
Erosion Control: Directional felling away from v-notches and C	lass I	I/III
streams. Maintain drainage (culverts, ditches) on Rd. 75434.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Variation Managements None prographed now out in instead		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Transfer Talling . None presering a nor uncrespaced.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
	-	
	ļ	
Prepared By: William R. Dougan Date: 08	/01 /	92
Date: 00	701/	76.
1.11. 11		
Certified By: William R. Dulyun Date: 08	/01 /	92
Certified Silviculturist	-	

UNIT # 2850 of the SE Chichagof Timber Sale STAND #100,103,117 VCU 240 MANAGEMENT AREA C37

ACRES 40 Determined How: GIS	By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1984</u> Flight Line <u>47C</u> Scale: 1:12000 1/4 Quad ID: <u>SITC3SW</u>	_ Photo #'s 184-15
SITE CHARACTERISTICS:	
Elevation: 550 to 1000 ft. Aspect: NW Landform: Smooth, infrequently dissected mountain Slope Configuration: Even to convex Plant Association: Western hemlock/blueberry	slopes and footslopes.  Site Index (Farr): 83
Soil: <u>SMU</u> = 5147B, 3557D	
Parent Material: Colluvium/ablation till over co	mpact till.
Soil Depth:(cm) <u>150</u> Soil Texture: <u>Gravelly</u> Potential of Mass Failure: <u>Low to moderate</u>	to mucky silt loam.
STAND CHARACTERISTICS:	
Stand Examination: Type None Stand History: Wind processes appear to be the m Potential Windthrow Hazard: Low to moderate Damaging Agents:	
Species Composition (trees 5+" DBH):&WH _ Stand Structure: <u>Uneven aged hemlock stand with</u> cedar.	
Ave. Height:ft. Basal Area:sq.ft Ave. DBH (trees 5+" DBH):in. Ave. TPA (tre Ground Cover: 60%-80% blueberry.	es 5+" DBH):
Total Net Sawlog Vol/Acre: MBF Total Volume by Species: H MBF AC MBF  SUMMARY OF OTHER RESOURCES AND VALUES:	
Soils - Ensure east boundary is above slope bre	
partial suspension in setting 1 to minimize dist	urbance to high hazard soils.
Fisheries, Hydrology, Wildlife - No concerns.	

Forest Plan: VCU 240 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class II/III streams adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit; spruce and cedar will likely be minor stand components. Spruce will likely regenerate near streams and where sufficient soil disturbance exposes mineral soil. Cedar should regenerate in areas of wetter soils.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Incermediace	Treatments:_	No creatments	pranned at	this time.	 

Transportation System: Accessed by road 7546 and temporary spu Temporary spur road will be closed, waterbarred, and grass-see		
Logging System: Designed for downhill highlead and running skyl partial suspension for setting 1.	ine.	Require
Unit Boundary: Ensure east boundary is above slope break of v-	notch.	
Streamside Management: No concerns. Class III stream located boundary. Portion of Class II TTRA buffer located along NE bo		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Directional felling along v-notches. Partial setting 1. Close, waterbar, & seed temp. road. Maintain drain Fuel Treatment: None prescribed.	suspe	nsion in
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check road drainage structures annually	KV KV	RD Silv. RD Silv. RD Roads
Check for blowdown timber annually each spring Monitor TTRA buffer for effectiveness, windfirmness		RD Silv. Fish/Hydro
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Millam Court Date: 08	/01 /	92_

UNIT # 3670 of the SE Chichagof Timber Sale

STAN	ID # <u>64, 73,</u>	VCU <u>246</u>	MANAGEMENT AREA C34	_
ACRES 35	Determined H	low: GIS	By Whom: <u>T.Falkner</u>	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: <u>S</u>		Flight Line <u>32</u>	Photo #'s <u>1184-5</u>	
SITE CHARACTER	ISTICS:			
Landform: Smoot Slope Configur Plant Associat cabbage. Soil: SMU = 35 Parent Materia	h, infrequent ation: Convex ion: Western h  25D, 5277B.  1: Colluvium/r )40 & 150	cly dissected mtslo	Slope:	ected ftslope Farr): 71 erry/deer
STAND CHARACTE				
Stand History: Potential Wind	Wind process throw Hazard: s: Old blowdo	ses appear to be the Low to moderate own scattered. Wes	11 (Stand 73 only)  ne major stand development  ather damage evident.	ent influence
Stand Structur	e: <u>Uneven age</u>	ed stand. Overston	WH <u>%MH 7 %AC</u> Ty consists of large, descriptions in depressions in depression in depressions in depressions in depression in depressions in depressions in depression	ecadent trees
	s 5+" DBH):_	17 in. Ave. TPA	trees 5+" DBH): 316 s club and skunk cabbac	
Total Net Sawl Volume by Spec			al Unit Vol: 958 ME BF SS <u>18.1</u> MBF	3F
SUMMARY OF OTH				
			ze visual impacts. Loc Mit effects of sidecast	
within 30 ft.	of road shoul	lders. Make limited	d adjustments to soften	N,S,W bdrys.
			at least partial suspens	
Fisheries, Hvd	rology. Wildl	g 3, as shown on pl Life - No concerns	not, due to high hazard	solls.
			-	

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III streams within and adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Decadence of overstory and presence of mistletoe preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration. Hemlock is anticipated to regenerate over most of the area; spruce and cedar will likely be minor stand components due to lack of seed sources. Spruce will be successful where mineral soil is exposed; cedar will be more successful in wetter areas.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

intermediate	rreatments:	NO treatments	planned at	tnis time.	

# 

Transportation System: Unit will be accessed by a temporary spu		
bar and grass seed after use. Locate road and landings to min	imize '	visual
impacts.		
Logging System: Designed for highlead. Require directional fel split yard v-notches.	ling a	way from and
White Development Walter Limited adjustments to reften the storicht		-66
Unit Boundary: Make limited adjustments to soften the straight	-eage	errect at
the north, south and western boundaries.	- 24	
Streamside Management: No concerns. Class III streams located	aujac	ent to unit.
V-notches within unit.		-
Wildlife Management: See Reserve Trees.		
D	- 2 2'	
Reserve Trees: 2 snags per acre left for wildlife and structur	al div	ersity.
Refer to marking quide for instructions for marking.	a D2	
Erosion Control: Close, waterbar, and grass-seed temporary roa		
felling along v-notches. Maintain drainage (culverts, ditches	) on Re	d. /5664.
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
rancing. None prescribed.		
Animal Damage Control: None prescribed.		· · · · · · · · · · · · · · · · · · ·
The second secon		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
	1	
Prenared Ry. William D. Dawes	101 11	22
Prepared By: William R. Dougan Date: 08	/01 /9	12

Certified By: William Continue Date: 08 /01 /92

Certified Silviculturist

Southeast Chichagof Final EIS \* Appendix L

UNIT # 3710 of the <u>SE Chichagof</u> Timber Sale

ACRES 40 Determined How: G	IS	By Whom: T. Falkner	Date: 1991
Aerial Photo: Year <u>1986</u> Flight Scale: 1:12000	ht Line 32	_ Photo #'s 1184-6	
			•
1/4 Quad ID: SITC5NE			
SITE CHARACTERISTICS:			
Elevation: 500 to 1100 ft.	Aspect: W	Slope:	5 to 55 %
Landform: Smooth infrequently dis	sected mtslopes/	frequently dissected	d footslopes.
Slope Configuration: Convex to e	ven	Site Index (I	Farr): 73
Plant Association: Western hemlo			
cabbage.			
Soil: SMU = 3547C, 5296B, 5247B			
Parent Material: Colluvium/ablat	ion till/organic	•	
Soil Depth: (cm) 150 Soil To		ky silt loam/peat.	
Potential of Mass Failure: Low			
			•
STAND CHARACTERISTICS:			
Stand Examination: Type None (W			
Stand History: Wind processes ap		ajor stand developme	ent influence
Potential Windthrow Hazard: <u>Mode</u>			
Damaging Agents:			
Garatian Garatikian (Lucas E.H. D.	DIII	0.207	0.00
Species Composition (trees 5+" D			
Stand Structure: <u>Uneven aged sta</u>	na or nemlock wi	th cedar/spruce as i	minor compon-
ents.			
Ave. Height: ft. Basa	l Area: ca ft	Ave Age: 150+	772*
Ave. DBH (trees 5+" DBH): in			<u> </u>
Ground Cover: 80% blueberry.		es 31 DBII):	
Ground Cover: Oos Blueberry:			
Total Net Sawlog Vol/Acre:	MBF Total	Unit Vol: 1088 M	3F
Volume by Species: H MBF		SS MBF	<u> </u>
volume by bpcoles. Ifibi			
SUMMARY OF OTHER RESOURCES AND V	ALUES:		
Soils - Ensure south boundary is		ak of v-notch. Reco	ommend at
least partial suspension over sh			
Hydrology - C.III stream borders			
slope break of C.III channel. B			
Visuals - Locate roads, landings		nimize visual impact	s. Make
limited adjustments to soften ea			
Fisheries, Wildlife - No concern			

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams within and adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage cedar/spruce regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.	 

## INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Temporary spur road will access			
of this unit will be up to 18% favorable. For visuals			
landings to minimize visual impacts. Locate and designation of the state of the sta			
visual impacts. Temporary spur road will be closed, was seeded after harvest.	<u>icerparrec</u>	i, and	grass-
Logging System: Designed for running skyline and high	load Boo		liroctional
r	leau. Rec	durre c	illectional
felling away from and split yard v-notches.			
Unit Boundary: C.III stream borders south side of unit.	Ensure	south	boundary is
above slope break of v-notch. Provide windfirm bounds	ary.		
Streamside Management: Class III stream on south bound	dary.		
Wildlife Management: See Reserve Trees.	•		
Reserve Trees: 2 snags per acre left for wildlife and	structura	al dive	ersity.
Refer to marking guide for instructions for marking.	/ 1 1	0 . 1	
Erosion Control: Directional fell away from Class III,			lit yard
v-notches. Close, waterbar, and grass-seed spur post-	-narvest.		
Fuel Treatment: None prescribed.			
Planting: None prescribed.			
Animal Damage Control: None prescribed.			
Vegetation Management: None prescribed nor anticipated	d.		
Precommercial Thinning: None prescribed nor anticipate	ed.		
Commercial Thinning: None prescribed nor anticipated.			
Final Harvest: Evaluate for harvest 95-100 years after	r harvest	•	
MONITORING PLAN:			
Activity and Date		Fund	Who
Natural regeneration exam 4-5 years after harvest		KV	RD Silv.
Certification of natural regeneration 4-6 years after	harvest	KV	RD Silv.
Check for blowdown timber annually each spring			RD Silv.
	<del> </del>		
Prepared By: William R. Dougan	Date: <u>08</u>	/01 /9	92_
Certified By: Milliam R. Dowern	Date: <u>08</u>	/01 /9	92_
Certified Silviculturist			

### UNIT # 3720 of the SE Chichagof Timber Sale

STAND # 50, 58 VCU 246 MANAGEMENT AREA C34 ACRES 83 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1986 Flight Line 32 Photo #'s 1184-6 Scale: 1:12000 1/4 Quad ID: SITC5NE SITE CHARACTERISTICS: Elevation: 400 to 950 ft. Aspect: E to NE Slope: 50 to 80 % Landform: Smooth, frequently dissected mountainslopes. Site Index (Farr): 82 Slope Configuration: Concave Plant Association: Western hemlock-yellow cedar/blueberry. Soil: SMU = 3247C, 3125D. Parent Material: Colluvium/ablation till over compact till Soil Depth: (cm) 150 Soil Texture: Mucky to gravelly silt loam. Potential of Mass Failure: High. STAND CHARACTERISTICS: Date 05/22/91 Stand Examination: Type R6 Quick Plot Type 11 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Low to moderate. Damaging Agents: High amount of weather injuries (broken tops/frost crack/crooks) with scattered rots. Basal rot common in cedar. Light to moderate mistletoe. Species Composition (trees 5+" DBH): 80-90%WH 0 %MH 5-10 %AC 5-15%SS Stand Structure: Uneven aged. Understory is poorly stocked, with mostly scattered hemlock. Brush competition is generally low. Ave. Height: 90-100ft. Basal Area: 260 sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 12-18in. Ave. TPA (trees 5+" DBH): 150-550 Ground Cover: 20% blueberry; 5%-20% rusty menziesia. Total Net Sawlog Vol/Acre: 22.6 MBF Total Unit Vol: 2278 MBF

## SUMMARY OF OTHER RESOURCES AND VALUES:

Visuals-Locate roads & landings to min. visual impacts. Locate & design rockpits to min. visual impacts. Mit. effects of sidecast slash w/in 30 ft. of road shoulders. Blend boundaries w/ topo features and natural openings Soils-Almost all unit has a high mass movement hazard. Recommend split yarding or full suspension over v-notches & slopes >75%; partial suspension on the rest of the unit. Hydrology-C.III stream w/in unit which is in a high mass wasting hazard area potential for sediment delivery to the C.I, stream. Protect C.III, split yard, maintain buffer to the C.I, log suspension, employ erosion prevention measures. BMP 13.9,13.11,13.16. Fisheries, Wildlife - No concerns.

Volume by Species: H 12.2 MBF AC 3.7 MBF SS 6.7 MBF

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Reqenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I, II and III streams within and adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut not feasible due to decadence of overstory and presence of mistletoe. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Spruce is expected to be a minor component in the new stand, confined primarily to areas adjacent to streams and where sufficient soil disturbance exposes mineral soil.

Cedar will regenerate on wetter sites and will be a minor stand component.

Marking Guide: Designate a minimum of 2 snags per acre to be left for structural diversity and wildlife. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

Transportation System: Accessed by Rd. #7566 and a temporary spur road. Close, waterbar, and grass-seed temp. road post-harvest. For visuals - locate road and landings to minimize visual impacts. Locate and design rockpits to minimize visual impacts.

Logging System: Designed for slackline. Require directional felling away from and split yard v-notches. Require partial suspension for entire unit due to high hazard soils. Directional fell away from Class I and II stream buffers.

Unit Boundary: Blend boundaries with topog. and natural openings. Incorporate Class I and II TTRA buffers into unit boundary layout.

Streamside Management: CIII stream within unit which is in a mass wasting hazard area, high potential for sediment delivery to the C.I stream. Objective: protect CIII and reduce erosion. Split yard on the C.III, maintain buffer to the C.I, log suspension recommended, employ erosion prevention measures. BMP 13.9,11,16 Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.
Refer to marking quide for instructions for marking.

Erosion Control: See Streamside Management above. Close, waterbar, and seed temporary spur and maintain drainage (culverts, ditches) on Rd. 7566.

Fuel Treatment: None prescribed.

Planting: None prescribed.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: None prescribed nor anticipated.

Commercial Thinning: None prescribed nor anticipated.

Final Harvest: Evaluate for harvest 95-100 years after harvest.

#### MONITORING PLAN:

Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffers for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: Mullim R. Olym Date: 08 /01 /92

Certified Silviculturist

UNIT # 3790 of the SE Chichagof Timber Sale

Si	TAND #18,20,27,28	VCU 246	MANAGEMENT AREA C34	
ACRES 35	Determined How:_	GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo Scale: 1:120 1/4 Quad ID:		ght Line <u>32</u>	Photo #'s <u>1184-7</u>	
-, · · <b>2</b> · · · · · · · · ·				
SITE CHARACT	ERISTICS:			
Landform: Smo Slope Config Plant Associ blueberry. Soil: SMU =	ooth infrequently diguration: Covcave/cor.ation: Western heml	ssected mtslope nvex/valley bott lock-yellow ceda	Slope:s/frequently dissected om Site Index (Fir/blueberry and Wester	footslopes.
Soil Depth: (	cial: <u>Colluvium/resid</u> cm) <u>25-40&amp;150</u> Soil Mass Failure: <u>Fro</u>	Texture: Silt lo	am, gravelly loam and	peat.
STAND CHARAC	TERISTICS:			
Stand Histor Potential Wi	.ndthrow Hazard:Mc	appear to be the oderate.	11 Emajor stand development to mo	
pinicola. H	High weather injurie	es in areas. Li	ght mistletoe in some	areas.
Stand Struct	ure: <u>Uneven aged and</u>	d storied. Crow	1 10-30 %MH 10-30%AC on closure is 40%-50%.	
		in. Ave. TPA (t	ft. Ave. Age: 150+ rees 5+" DBH): 100-150 menziesia.	yr.
	awlog Vol/Acre: 22.4 pecies: H <u>18.8</u> MBF		l Unit Vol: 951 ME	3 <u>F</u>
Fisheries, F visual impact effects of sten E.bounds and try to	cts. Locate and des sidecast shash with ary.Soils - Avoid ya maintain some suspe	-No concerns. Visign rockpits to in 30 ft. of rocarding down the ension near the	suals-Locate roads & lo minimize visual impact ad shoulders. Limited v-notch in the center landing in setting 1 k	ets. Mit. adj. to sof- of setting 1 pecause of
might be pre				

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and Class I, II and III streams within and adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory and presence of mistletoe. Clearcut with reserve trees will minimize adverse impacts of disease on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar will likely be a minor stand component due to lack of seed sources and reproductive vigor; wetter areas will likely regenerate with a higher cedar component.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No	treatments	planned	at	this	time.		

Transportation System: Accessed by road 7566 and a spur road t		
waterbarred & seeded after harvest. For visuals - locate road		
minimize visual impact. Locate and design rockpits to minimiz	e visu	al impacts.
Y G	h = 1	
Logging System: Designed for running skyline. Locate backline	perow	extreme
hazard soils.	. <del>.</del>	
Unit Boundary: Make limited adjustment to soften straight-edge	offer:	t of the
eastern boundary. Incorporate Class II TTRA buffer into unit		
Streamside Management: No concerns. Class II/III stream adjac		
boundary. Directional fell away from streams.		Doddii diile
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al div	ersitv.
Refer to marking quide for instructions for marking.		
Erosion Control: Close, waterbar & grass-seed spur road. Main	tain d	rainage
(culverts, ditches) on Rd. 7566.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		· · · · · · · · · · · · · · · · · · ·
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest		
rinal harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness	-	Fish/Hydro
	1	
Prepared By: William R. Dougan Date: 08	/01 /	92

Certified By: Milliam R. Date: 08 /01 /92

Certified Silvidulturist

	UNIT # 3810	of the SEC	<u>nichagof</u>	Timber	Sale	
STAN	D #_14, 15	VCU <u>246</u>	. м	ANAGEMENT A	AREA C34	_
ACRES 26	Determined H	ow: GIS		By Whom: T.	Falkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: Si		Flight Line <u>3</u> —	32	Photo #'s_	1184-8	
SITE CHARACTER	ISTICS:					
Elevation: 69 Landform: Broken Slope Configura Plant Associat:	n mountainslo ation: <u>Convex</u>	pes and hillsl	lopes.			35 to 55 s
Soil: SMU = 364 Parent Material Soil Depth: (cm) Potential of Ma	l: <u>Colluvium o</u> ) <u>150</u> S	oil Texture: N			•	
STAND CHARACTE	RISTICS:					
Stand Examinat: Stand History: Potential Winds Damaging Agents moderate defect	Wind process throw Hazard: s: Frost crac	es appear to b High ks common. Br	coken top	jor stand d	levelopme	nt influence
Species Composi	e: <u>Two-storie</u>	d stand of pri				10 %SS
spruce. Under	story is spar	se.				
Ave. Height: 1: Ave. DBH (trees Ground Cover:	s 5+" DBH): <u>20</u>	<u>-30in.</u> Ave. 1				yr.
Total Net Sawlo Volume by Spec	og Vol/Acre:_ ies: H	MBF AC	Total U	nit Vol: SS	1406 MB MBF	<u>F</u>
SUMMARY OF OTH			nt; recom	mend full s	suspensio	n wherever
possible; Oth	erwise at lea	st partial sus	spension.	Ensure no	orth and	south
boundaries are Fisheries, Hyd					eas.	
	LOTOGY, WITGI	TIE - NO CONCE	51112.			

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource and v-notches within unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory and high potential for windthrow. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the stand. Spruce will be a minor component, confined primarily to areas adjacent to streams and areas where soil disturbance is sufficient to expose mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

# INTEGRATED SILVICULTURE PRESCRIPTION

Transportation System: Temporary spur road accesses this unit. road will be closed, waterbarred, and grass-seeded after harves		rary spur
Logging System: Designed for running skyline. Require direction from and split yard v-notches; full suspension over v-notches split yarded (minimum partial suspension for entire unit).		
Unit Boundary: Ensure north and south boundaries are above slowed notches in those areas. Layout boundaries for windfirmness.  Streamside Management: No concerns. Several v-notches within/of the transfer adjacent to SE corner of unit.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur.  Refer to marking guide for instructions for marking.  Erosion Control: Close, waterbar & grass-seed temp. road. Parsuspension to minimize soil disturbance. Directional fell/spl  Fuel Treatment: None prescribed.	tial/f	ull
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest Certification of natural regeneration 4-6 years after harvest Check for blowdown timber annually each spring Monitor TTRA buffer for effectiveness, windifirmness	KV KV	RD Silv. RD Silv. RD Silv. Fish/Hydro
Prepared By: William R. Dougan Date: 08	/01 /	92_
Certified By: Milliam Collyn Date: 08  Certified Silviculturist	/01 /	92_

UNIT # 3820 of the <u>SE Chichagof</u> Timber Sale

	STA	ND # 5, 7, 8	VCU 246	MANAGEMENT AREA C3	<u>4</u>
ACRES _	18	Determined H	low: GIS	By Whom: T.Falkner	Date: 1991
Scale:	1:12000		Flight Line 32	Photo #'s <u>1184-8</u>	
SITE C	HARACTER	RISTICS:			
Landfor Slope (	rm: <u>Broke</u> Configur	en mountainslo ation: Valley	Aspect:	Site Index (	
Parent Soil De Potent:	epth:(cmial of M	al: <u>Colluvium/</u>	oil Texture: Silt	loam to gravelly loam	
Stand I Stand I Potent: Damagin	Examinat History: ial Wind	ion: Type	es appear to be to High	e 11 (Stand 7 only) ne major stand developm decay; Few broken tops etoe.	ent influence
Stand S	Structur		sure 40%-50%. Lit	WH 0 %MH 0 %ACtle regen. in understor	
Ave. Di	BH (tree	16 ft. es 5+" DBH): 2 15% blueberry	6 in. Ave. TPA	q.ft. Ave. Age: 150+ (trees 5+" DBH): 65	
				tal Unit Vol: 506 M BF SSMBF	IBF
Soils,	Hydrolo		- No concerns.	it, requires 100 ft. bu	ffer.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory, presence of mistletoe, likelihood of blowdown and desire to encourage spruce regeneration. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Spruce will be planted at 12 x 12 spacing over the entire unit to ensure species diversity and provide for a more vigorous, healthy stand.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate	Treatments:	No treatment	s planned at this t	cime.	

Transportation System: Accessed by temporary spur road which wi waterbarred and grass-seeded after harvest.	ll be	closed,
Logging System: Designed for running skyline. Require direction from Class II stream buffer.	nal fe	lling away
Unit Boundary: TTRA buffer adjacent to unit on east side. Proveness.	ide fo	r windfirm-
Streamside Management: C.II channel on north side of unit, recubuffer.	uires	100 ft.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking guide for instructions for marking. Erosion Control: Directional felling away from Class II channed bar, and grass-seed temporary road after harvest. Fuel Treatment: None prescribed.		
Planting: Plant entire unit with spruce following harvest. Planting.	ant 12	x 12 ft.
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest		
MONITORING PLAN:		
Activity and Date	Fund	Who
Plant entire unit with spruce, 12 x 12 ft. spacing	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Survival exams 1 and 3 years after planting; natural regen.		
exam included in 3rd year	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified By: Millum R.

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 3860 of the SE Chichagof Timber Sale

STAND #128,159,340, VCU 246 MANAGEMENT AREA C34

343,345	
ACRES 38 Determined How: GIS	By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1986 Flight Line 32 Scale: 1:12000 1/4 Quad ID: SITC5NE	_ Photo #'s1184-9
SITE CHARACTERISTICS:	
Elevation: 550 to 1000 ft. Aspect: W to Landform: Smooth, infrequently dissected mountain Slope Configuration: Concave/convex/even slope.  Plant Association: Mixed conifer/blueberry, mixed sitka spruce/blueberry.  Soil: SMU = 3551D  Parent Material: Colluvium/residuum  Soil Depth: (cm) 25-40 Soil Texture: Gravelly Potential of Mass Failure: Moderate to high.	slopes Site Index (Farr): 65 conifer/skunk cabbage and
STAND CHARACTERISTICS:	
Stand Examination: Type R6 Quick Plot Type 1 Stand History: Wind processes appear to be the m Potential Windthrow Hazard: Low to moderate.  Damaging Agents: High weather injuries. High defunit. Lower in other portions. Moderate to high	ajor stand development influence ect and decay in portion of
Species Composition (trees 5+" DBH): 50-70 %WH _ Stand Structure: Stand 345 is storied. Other stalight to moderate in understory. Mistletoe has	nds are uneven aged. Regen. is
Ave. Height: 90-110ft. Basal Area: 180 sq.ft Ave. DBH (trees 5+" DBH): 18-24in. Ave. TPA (tre Ground Cover: 10%-25% blueberry; <10% rusty men	es 5+" DBH): <u>80-120</u>
Total Net Sawlog Vol/Acre: 22.4 MBF Total Volume by Species: H 13.4 MBF ACMBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils, Fisheries, Hydrology, Wildlife - No conce	SS 9.0 MBF

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class II stream adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Partial cut infeasible due to decadence of overstory and presence of mistletoe in overstory/understory. Clearcut with reserve trees will minimize adverse impacts of disease (refer to Item 4, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit; spruce is anticipated to be a minor component due to lack of seed sources and the need to have exposed mineral soil for regeneration.

Intermediate	Treatments: No treatments planned at this time.	

Page  $\underline{3}$  of  $\underline{3}$ 

Transportation System: Accessed by Rd. #7566. Standard road cons	struct	ion.
Logging System: Designed for running skyline. Require direction from Class II stream buffer. Locate backline below extreme has		
Unit Boundary: No concerns. Provide windfirm boundary. Incorpinto unit boundary layout where necessary. Locate backline beloestreamside Management: Class II stream adjacent to unit.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structural Refer to marking guide for instructions for marking.  Erosion Control: Directional felling away from streams. Maintage (culverts, ditches) along Rd. 7566.  Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed. Evaluate PCT as a together in the prescribed if mistletoe infection becomes severe in regenerating stand.  Commercial Thinning: None prescribed nor anticipated.  Final Harvest: Evaluate for harvest 95-100 years after harvest		sanitation
MONITORING PLAN:	•	
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check road drainage structures annually  Check for blowdown timber annually each spring  Monitor mistletoe infection in developing regen.; evaluate	KV KV	RD Silv. RD Silv. RD Roads RD Silv.
need for PCT/sanitation  Monitor TTRA buffer for effectiveness, windfirmness		RD Silv. Fish/Hydro
Prepared By: William R. Dougan  Date: 08  Certified By: Milliam R. Dougan  Date: 08  Certified Silviculturist		

UNIT # 4110 of the SE Chichagof Timber Sale

STAND #188,189,193, VCU 246 MANAGEMENT AREA C34

	194,225				
ACRES 58	Determined D	How: GİS	By Wh	om: <u>T.Falkner</u>	Date: <u>1991</u>
Aerial Photo: Scale: 1:12000 1/4 Quad ID: <u>S</u>	1	Flight Line_3	34B Photo	#'s <u>2784-26</u>	)
SITE CHARACTER	ISTICS:				
Landform: Smoot Slope Configur Plant Associat western hemloo Soil: SMU = 35 Parent Materia Soil Depth: (cm	h infrequent ation: Conversion: Western k-yellow ced 51D, 5243B, 1:Colluvium/ 1)25-40&150	ly dissected mtx hemlock/bluebear/blueberry. 3151D residuum/ablat	E: E Eslopes/frequen erry, mixed con ion till over c ilt loam to gra	tly dissected Site Index (Index) ifer/blueber	Farr): 65 ry and
Stand History: Potential Wind	Wind proces	ses appear to b	ru of area done be the major st , rot and blowd	and developm	ent influence
	e: <u>Uneven aq</u>		%WH %M imarily hemlock		%SS amounts of
Ave. Height: Ave. DBH (tree Ground Cover:_	es 5+" DBH):_	in. Ave.	sq.ft. Ave IPA (trees 5+"	DBH):	yr.
			Total Unit Vo		BF
SUMMARY OF OTH Visuals - Loca igate effects			knita to minimi	ze visual im	pacts. Mit-

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect Class III channel adjacent to unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Likelihood of blowdown, decadence of overstory and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit; spruce and cedar will likely be minor components in regenerating stand. Cedar will likely regenerate in wetter areas; spruce will likely be confined to stream adjacent areas and areas of exposed mineral soil.

Intermediate	Treatments:	No treatment	s planned a	t this time	•	

Transportation System: Temporary spur road access to upper part		
waterbar, and grass-seed temporary road after harvest. For vi		
roads and landings to minimize visual impacts. Locate and des	ign roo	kpits to
minimize visual impacts.		
Logging System: Designed for running skyline. Require partial	susper	nsion for
setting 5 & 6 due to high hazard soils.		
Unit Boundary: Make limited bdry. adjustments to all boundaries		
straight-edge effect. Ensure north boundary is above slope br	eak of	deep
v-notch. Provide for windfirmness.		
Streamside Management: No concerns. Class III stream adjacent	to no	cth unit
boundary.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structure	al dive	ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Directional felling along Class III stream.	Close,	waterbar.
& seed temp. road. Maintain drainage (culverts, ditches) on R		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
	+	
Prepared By: William R. Dougan Date: 08	/01 /9	92
Date: 00	, , ,	

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 4140 of the SE Chichagof Timber Sale

STAND #194,224,234, VCU 246 MANAGEMENT AREA C34

ACRES 19	Determined H	low: GIS	By Whom: I	.Falkner	Date: 1991
Scale: 1:12000		Flight Line 34E	Photo #'s	3 2784-27	0
1/4 Quad ID: <u>S</u>	TICSSE	_			
SITE CHARACTER	ISTICS:				
Elevation: 30	0 to 600 ft	. Aspect: S	SW to W	Slope: 1	0 to 60 %
		pes and hillsides	& gently slopi	ing lowland	s.
Slope Configur	ation: Even s	lope	Site	Index (Fa	rr): 72
		hemlock/blueberry	, mixed conifer	:/blueberry	and mixed
conifer/skunk		fern.			
Soil: $SMU = 36$					
		and ablation till			
		Soil Texture: Mucky	to gravelly si	It loam.	
Potential of M	ass Fallure:_	LOW			
STAND CHARACTE	RISTICS:				
Stand Examinat	ion: Type R6	Quick Plot Type	11 (Stand 234 c	only) Da	te 09/13/91
		ses appear to be t			
Potential Wind	throw Hazard:	Moderate			
Damaging Agent	s: Cedar showi	ing decline/butt	cot. Light mist	:letoe thro	ughout.
		conks and pinicola			s/sweeps.
		d blowdown evider			
	· ·	5+" DBH): <u>50-80</u> 9			
		oughout unit, from			
		dbh trees. Stand			
		neven aged. Saps	poles are from	well stock	ed to low_
stocked with p				150.	
		Basal Area: 275			<u>r</u> .
		<u>l4 in.</u> Ave. TPA erry; 10%-25% rus	· ·		club.
<5% salmonberr		erry; 104-254 rus	scy menziesia ai	id devil s	Club,
130 Salmonbell	y •				
Total Net Sawl	og Vol/Acre:	MBF To	otal Unit Vol:	516 MBF	
Volume by Spec					
1 1					
SUMMARY OF OTH	ER RESOURCES	AND VALUES:			
		SI=1.0) brown bear	r habitat is map	oped outsid	e of the
unit to the we	st. Avoid ex	kpansion of unit :	into this area u	upon verifi	cation of
high quality r	ating.				
	end partial s	suspension in this	s unit because o	of shallow	and/or wet
soils.					
Fisheries, Hyd	rology - No d	concerns.			

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream below unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. General decadence of overstory, presence of mistletoe, likelihood of blowdown and desire to encourage cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Plant cedar at wide spacing to ensure species diversity in regenerating stand and to ensure adequate regeneration in wetter microsites favorable for cedar.

Intermediate	Treatments:_1	No treatments	planned at	this time.	

Transportation System: Accessed by temporary spur road; close	, water	par, and
grass-seed after harvest. Road 7623 accesses the bottom of t	he unit	
Logging System: Designed for running skyline.		
Unit Boundary: Provide for windfirm boundary.		
Streamside Management: No concerns. Class I stream located b	elow un:	Lt.
Wildlife Management: High Quality (HSI=1.0) brown bear habitat unit. Avoid expansion into this area upon verification of marating.		
Reserve Trees: 2 snags per acre left for wildlife and structu		
	rai dive	ersity.
Refer to marking guide for instructions for marking.	~1 ·	-1 - 3
Erosion Control: Partial suspension to protect soil resource.		
and seed temp. road. Maintain drainage (culverts, ditches) o	n Ra. /	023.
Fuel Treatment: None prescribed.		
Planting: Plant entire unit with cedar at 20 x 20 ft. spacing	followi	ng harvest
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harves	t.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Accivity and Date	Fullu	WIIO
Plant cedar 20 x 20 ft. spacing over entire unit	KV	RD Silv.
Install survival transect stakes during planting operation		RD Silv.
	KV	
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen.	7/17	DD C:1-
exam included in 3rd year.	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KV	RD Silv.

Prepared By: William R. Dougan

Date: <u>08 /01 /92</u>

Certified By:

Date: <u>08 /01 /92</u>

# UNIT # 4141 of the SE Chichagof Timber Sale

STAND #233,237,241, VCU 246 MANAGEMENT AREA C34

ACRES 18	Determined H	ow: GIS	By Whom: T.	Falkner Date: 1991
Aerial Photo: Scale: 1:12000		Flight Line 34B	Photo #.'s_	2784-270
1/4 Quad ID:	SITC5SE	_		
SITE CHARACTER	ISTICS:			
			NW to N s/gently sloping	Slope: 10 to 60 % lowlands.
				Index (Farr): 67
Plant Associat	ion:Western h	emlock/blueberry	, mixed conifer/b	lueberry and mixed
conifer/skunk				
Soil: $SMU = 36$	47C, 6174B			
Parent Materia	l:Colluvium/a	blation till ove	r compact till.	
			y to gravelly sil	t loam.
Potential of M	ass Failure:_	Low		
STAND CHARACTE	RISTICS:			
Stand Examinat	ion: Type R6	Ouick Plot Type	11	Date 09/13/91
				evelopment influence
Potential Wind				
Damaging Agent	s: Cedar showi	ng decline/butt	rot. Light mistle	etoe throughout.
Some weather d	amage, pini c	onks, and pinico	la conks. Many f	orks/crooks/sweeps.
Low to moderat	e decay. Blo	wdown evident th	roughout area.	
Species Compos	ition (trees	5+" DBH): <u>50-80</u>	%WH <u>0 %MH 20</u>	<u>-50 %</u> AC <u>0-5 %</u> SS
				with good form to
				ith patches of thick
			s/poles are from	well stocked to low
stocked with p				
			sq.ft. Ave. Age	
			(trees 5+" DBH):	
		erry; 10%-25% ru	sty menziesia and	devil's club.
<5% salmonberr	У			
Total Not Saul	og Vol/Agro:	23 O MRE T.	otal Unit Vol: 4	O6 MPF
Volume by Spec				
volume by bpec	1es. n <u>10.0</u>	MDI AC <u>2.0</u>	MDF 33 1.0	MDF
SUMMARY OF OTH	ER RESOURCES	AND VALUES:		
			partial suspension	n over the wet
			mize soil disturb	
		ife - No concern		

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous stand which will provide sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams adjacent and below unit.

Alternatives Considered: Regeneration treatments considered include clearcut with reserve trees and partial cut. Decadence of overstory, presence of mistletoe, likelihood of blowdown and desire to encourage cedar/spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease/windthrow on forest health and provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural and artificial regeneration. Hemlock is anticipated to regenerate naturally over most of the unit. Plant cedar at wide spacing to ensure species diversity and get stocking in wetter areas. Spruce will likely be a minor component, confined to areas adjacent to streams and areas with soil disturbance to expose mineral soil.

Treatments:	 Creacileres	pramica	<u></u>	CITE	CIMCI		
			_				

# INTEGRATED SILVICULTURE PRESCRIPTION Page 3 of 3

Transportation System: Accessed by temporary spur road off of I	Rd.#762	3. This
temporary spur road will be closed, waterbarred, and grass-see	eded af	ter harvest.
	<u> </u>	
Logging System: Designed for running skyline. Locate landing:	tor set	ting 5 to
minimize damage to residual trees in unit 4142.		
Unit Boundary: Provide for windfirm boundary. Class II stream	n huffe	r is located
adjacent to northeast corner of unit.	" Bulle	I IS IOCUCCA
Streamside Management: No concerns. Class II stream located	adiacen	t to unit.
bereambree namegement. No concerns. Orabs II beream recure	<u>,</u>	0 00 4.1.201
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structu	ral div	ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Close, waterbar, and grass-seed temp. road.		
Fuel Treatment: None prescribed.		
Planting: Plant entire unit with cedar at 20 x 20 ft. spacing	followi	ng harvest.
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
vegetation management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		=
ricommercial infiming. None prescribed not uncrespaced.		
Commercial Thinning: None prescribed nor anticipated.		
3		
Final Harvest: Evaluate for harvest 95-100 years after harves	t.	
MONITORING PLAN:		
Activity and Date	Fund	Who
Plant entire unit with cedar, 20 x 20 ft. spacing	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen.		
_exam included in 3rd year	KV	RD Silv.
Certification of regeneration 3-4 years after planting	KU	RD Silv

Prepared By: William R. Dougan

Date: 08 /01 /92

Certified Silviculturist

Date: <u>08 /01 /92</u>

UNIT # 4142 of the <u>SE Chichagof</u> Timber Sale
STAND #241, 245 VCU 246 MANAGEMENT AREA C34
ACRES _ 7 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year 1990 Flight Line 34B Photo #'s 2784-270
Scale: 1:12000 1/4 Quad ID: <u>SITC5SE</u>
SITE CHARACTERISTICS:
Elevation: 250 to 400 ft. Aspect: NW to N Slope: 10 to 60
Landform: Frequently dissected footslopes and alluvial fans.
Slope Configuration: <u>Even slope</u> Site Index (Farr): <u>97</u>
Plant Association: Western hemlock/blueberry, mixed conifer/blueberry and mixed
conifer/skunk cabbage/lady fern.
Soil: <u>SMU = 5220B</u>
Parent Material: Colluvium/residuum/alluvium
Soil Depth: (cm) 150 Soil Texture: Silt loam to gravelly silt loam.
Potential of Mass Failure: Low
STAND CHARACTERISTICS:
Stand Examination: Type R6 Quick Plot Type 11 Date 09/13/9
Stand History: Wind processes appear to be the major stand development influence
Potential Windthrow Hazard: Moderate.
Damaging Agents: Cedar showing decline/butt rot. Light mistletoe throughout.
Some weather damage, pini conks, and pinicola conks. Many forks/crooks/sweeps.  Low to moderate decay.
Species Composition (trees 5+" DBH): 50-80 %WH _ 0 %MH 20-50 %AC _0-5 %SS
Stand Structure: Generally large diameter hemlock/spruce with scattered midstory
of up to 12" DBH trees. Understory generally well stocked, though overhead
shading is suppressing crowns. Uneven aged stand.
shading is suppressing crowns. Oneven aged scand.
Ave. Height: 65-85 ft. Basal Area: 275 sq.ft. Ave. Age: 150+ yr.  Ave. DBH (trees 5+" DBH): 14 in. Ave. TPA (trees 5+" DBH): 300-400  Ground Cover: 40%-70% blueberry; 10%-25% rusty menziesia and devil's club.
<pre>&lt;5% salmonberry</pre>
43° Salmonberry
Total Net Sawlog Vol/Acre: 38.1 MBF Total Unit Vol: 305 MBF Volume by Species: H 30.5 MBF AC 2.3 MBF SS 5.3 MBF
SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Riparian soils. Recommend partial suspension with full suspension over
any streams.
Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags, large down woody material and a portion of the midstory and advanced regeneration. Protect soils. Protect stream channels adjacent to unit.

Alternatives Considered: Regeneration harvests considered include clearcut with reserve trees and partial cut. Vigorous midstory makes partial cut feasible. Retain trees up to 12" DBH for structural diversity and to allow additional growth.

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Partial cut (retain advanced regeneration and trees up to 12" DBH). Plant cedar at wide spacing to ensure species diversity. Hemlock will naturally regenerate into gaps following harvest. Spruce will regenerate in areas of exposed mineral soil in canopy gaps.

Marking Guide: ITM trees greater than 12" DBH for removal. If merchantable trees 9-12" DBH must be removed for skyline corridors, ITM these trees. Retain trees up to 12" DBH regardless of spacing. Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is cedar/spruce; hemlock is least desirable for snag retention. Clump/group snags along unit boundary and TTRA buffer to maximize retention during yarding. If inadequate snags exist, utilize green trees up to 12" DBH which will be left to serve as recruitment trees for snags. In addition, live cull can be utilized for green tree retention. Avoid marking mistletoed hemlock for retention.

Ince	rmed.	race	Trea	·men	LS:_E	2088	TDITIO	<u>.y e</u>	XISUS	TOL	COIIII	nerc	Lal (	-11711	$\Pi \perp \Pi$	19 6	JI Sta	ina a	ue
to r	etent	tion	of up	to	12"	DBH	trees	as	well	as h	nigh	sit	e qua	alit	y o	of u	nit.	Eva	1-
uate	for	comn	nercia	al t	hinn	ing	in cor	njun	ction	with	sal	le p	lann	ing	in	pla	nnin	are	a.
																_			_

Transportation System: Accessed by Rd. #7623.

Logging System: Designed for running skyline. Suggest ITM. Minimize damage to residual: Predesignate corridors (parallel settings), use rub trees, partial/full suspension, and lateral yarding ability. Directional fell away from Class I stream buffers. Tractor skidding on snow an acceptable alternative.

Unit Boundary: Incorporate TTRA buffer design into unit boundary. Provide windfirm boundary.

Streamside Management: No concerns. Class I stream adjacent to unit.

Wildlife Management: See Reserve Trees.

Reserve Trees: 2 snags per acre left for wildlife and structural diversity.

Refer to marking quide for instructions for marking.

Erosion Control: Partial/full suspension to protect riparian soils. Maintain drainage (culverts, ditches) on Rd. 7623. Directional fell away from streams.

Fuel Treatment: None prescribed.

Planting: Plant entire unit with cedar at 20 x 20 ft. spacing following harvest.

Animal Damage Control: None prescribed.

Vegetation Management: None prescribed nor anticipated.

Precommercial Thinning: Evaluate for PCT 12-14 years after harvest. Base needs for thinning on results of exam.

Commercial Thinning: Possibility for commercial thinning. Evaluate approx. 50 years after harvest, in conjunction with sale planning effort in planning area.

Final Harvest: Evaluate for harvest 95-100 years after harvest.

#### MONITORING PLAN:

Activity and Date	Fund	Who
Plant cedar at 20 x 20 ft. spacing following harvest	KV	RD Silv.
Install survival transect stakes during planting operation	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Survival exams 1 and 3 years after planting; natural regen.		
exam included in 3rd year	KV	RD Silv.
Precommercial thinning exam 12-14 years after harvest		RD Silv.
Precommercial thin 15-17 years after harvest; base needs on		
results of exam		RD Silv.
Stand exam to evaluate opportunity for comm. thin (approx. 50		
years following harvest, prior to an entry in area)		RD Silv.
Monitor TTRA buffer for effectiveness, windfirmness		Fish/Hydro

Prepared By: William R. Dougan Date: 08 /01 /92

Certified By: Millian R. Vouque Date: 08 /01 /92

Certified Silviculturist

UNIT # 4160 of the SE Chichagof Timber Sale

STAND #174,175,187,228 VCU 246 MANAGEMENT AREA C34

ACRES 31	Determined H	low: GIS		By Whom: T.F.	alkner	Date: 1991
Aerial Photo: Scale: 1:12000 1/4 Quad ID: <u>S</u>		Flight Line —	2 34B	Photo #'s	2484-10	8
SITE CHARACTER	ISTICS:					
Elevation: 55					lope:5	55 to 75 %
Landform: Smoot					3 (7	
Slope Configur						
Plant Associat	ion: western	nemlock-yell	ow cedar/b	lueperry and	mixed c	onlier/
<pre>blueberry. Soil: SMU = 31</pre>	E1D					
Parent Materia		rociduum				
Soil Depth: (cm			Silt loam	to gravelly	loam	
Potential of M			SIIC IOAM	to graverry	TOdiii.	
rocemerar or n	abb rurrure	noderace				
STAND CHARACTE	RISTICS:					
Stand Examinat	ion: Type	None (walk-t	hru by log	ging special	ist) Da	te 05/26/91
Stand History:						
Potential Wind	throw Hazard:	Low to mode	erate			
Damaging Agent	s: Low to mod	derate pinico	ola in area	s noted duri	ng walk-	thru by
logging feasib	ility team.					
Species Compos Stand Structur and spruce.						
Ave. Height: Ave. DBH (tree Ground Cover:_	s 5+" DBH):	<u>in.</u> Ave.				<u>'r</u> .
Total Net Sawl Volume by Spec			Total U			2
SUMMARY OF OTH						
Soils - Ensure						
Recommend part			num to prot	ect high haz	ard soil	s. Full
suspension wou						
Fisheries, Hyd	rology, Wildl	life - No cor	ncerns.			

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams adjacent to and below unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.	
Hemlock is anticipated to regenerate naturally over most of the unit. Spruc	е
and cedar will be minor stand components; spruce will regenerate where miner	
soil is exposed, while cedar is expected to do well in wetter areas.	

Transportation System: Accessed by a temporary spur road off the 7762. This spur road will be closed, waterbarred, and grass-s		
harvest.	ccaca	21001
Logging System: Designed for slackline. Require directional fe	ll away	y from and
split yard v-notches. Require partial suspension for entire u		
hazard soils.		
Unit Boundary: Layout boundary for windfirmness. Class III st	reams :	located ad-
jacent to unit on north/south boundary.		
Streamside Management: No concerns. Class III streams adjacer	t to ur	nit. Class
II stream below unit. Directional felling along v-notches, st	reams.	Split yard
v-notches.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to marking guide for instructions for marking.		
Erosion Control: Partial suspension required. Directional fel		way from
streams. Close, waterbar, and grass-seed temp. road post-harv	est.	
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
	-	
	-	
	<b></b>	
December of the William to the control of the contr	107 1	22
Prepared By: William R. Dougan Date: 08	/01 /9	92_
12 10		
Certified By: Milliam R. Joulym Date: 08	/01 /9	92

# <u>INTEGRATED SILVICULTURE PRESCRIPTION</u> Page <u>1</u> of <u>3</u>

UNIT # 4250 of the <u>SE Chichagof</u> Timber Sale

STAND #148,150,155, VCU 246 MANAGEMENT AREA C34

159		
ACRES 51 Determined How: GIS	By Whom: T.Falkner	Date: 1991
Aerial Photo: Year <u>1990</u> Flight Line <u>34B</u> Scale: 1:12000 1/4 Quad ID: <u>SITC5NE</u>	Photo #'s 2784-270	
SITE CHARACTERISTICS:		
Elevation: 1050 to 1700 ft. Aspect: S to Landform: Smooth, frequently dissected mountainslop Slope Configuration: Convex to even  Plant Association: Mountain hemlock/blueberry and cabbage.  Soil: SMU = 3238D, 5296B  Parent Material: Colluvium/residuum.  Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/OPotential of Mass Failure: Low to moderate	pes and footslopes Site Index (Foundation of the line of the	arr): <u>57</u> berry/deer
STAND CHARACTERISTICS:		
Stand Examination: Type None (walk-thru by logg Stand History: Wind processes appear to be the ma Potential Windthrow Hazard: Low to moderate Damaging Agents: Fairly decadent in some areas, wiscars, forked tops and dead tops. Old blowdown in	jor stand developme th pinicola, butt re	nt influence
Species Composition (trees 5+" DBH): %WH	even aged stand. Hont on lower slopes.  Ave. Age: 150+ 150+ 150+ 150+ 150+ 150+ 150+ 150+	emlock and Decadent yr.
Total Net Sawlog Vol/Acre: MBF Total Use Volume by Species: H MBF AC MBF		<u>F</u>
SUMMARY OF OTHER RESOURCES AND VALUES:  Soils - Split yard or full suspension over v-note partial suspension because of high haz. soils.  Hydrology - C.III stream within the unit, which is area. Objective: protect C.III channel, reduce C.III, log suspension recommended, employ erosion 13.11, 13.9, 13.16.  Wildlife - No concerns.	Fisheries - No cons s in a high mass was erosion. Split yard	cerns. sting hazard d on the

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect Class III streams within unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of stand information, likelihood of blowdown and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.
Hemlock is anticipated to regenerate naturally over most of the unit; cedar will
likely regenerate in wetter areas, with spruce regenerating in areas of suffic-
ient soil disturbance to expose mineral soil.
Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife
and structural diversity. Species preference is cedar/spruce; hemlock is least
desirable for snag retention. Clump/group snags along unit boundary to maximize
retention during yarding. If inadequate snags exist, mark green trees for re-
tention to serve as recruitment trees for snags. Utilize live cull to the ex-
tent possible. Avoid marking mistletoed hemlock for retention.
Intermediate Treatments: No treatments planned at this time.

# INTEGRATED SILVICULTURE PRESCRIPTION Page 3 of 3

Transportation System: Temporary spur road accesses unit off R spur road will be closed, waterbarred, and grass-seeded after		
Logging System: Designed for slackline and running skyline. Re		
felling and yard away from v-notches. Require partial suspens		
unit due to high hazard soils; full suspension over v-notches	that ca	an't be
split yarded.		
Unit Boundary: Provide for windfirmness.		
Streamside Management: C.III stream within the unit, which is i	n a hi	gh mass
wasting hazard area. Objective: protect C.III channel, reduce	erosi	on. Split
yard v-notches, log suspension recommended.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to marking guide for instructions for marking.		
Erosion Control: Directional fell away from streams. Partial	suspens	sion over
entire unit. Close, waterbar, and grass-seed temp. spur.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest		· · · · · · · · · · · · · · · · · · ·
MONITORING PLAN:		
Activity and Date	Fund	Who
		:
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
	-	
Prepared By: William R. Dougan Date: 08	/01 /9	92
20 //		
Certified By: Milliam Cougus Date: 08  Certified Silviculturist	/01 /9	92_

UNIT # 4260 of the <u>SE Chichagof</u> Timber Sale
STAND #159, 305 VCU 246 MANAGEMENT AREA C34
ACRES 13 Determined How: GIS By Whom: T.Falkner Date: 1991
Aerial Photo: Year <u>1987</u> Flight Line <u>35</u> Photo #'s <u>1684-194</u> Scale: 1:12000 1/4 Quad ID: <u>SITC4NW</u>
SITE CHARACTERISTICS:
Elevation: 900 to 1200 ft. Aspect: S Slope: 20 to 80 %  Landform: Mtslopes with avalanching or mass wasting/frequently dissected ftslopes  Slope Configuration: Convex Site Index (Farr): 87  Plant Association: Western hemlock/blueberry/devil's club, sitka spruce/  blueberry/devil's club and moutain hemlock/blueberry.  Soil: SMU = 3002E, 5234B  Parent Material: Colluvium/residuum  Soil Depth: (cm) 150 Soil Texture: Sandy loam/gravelly silt loam.
Potential of Mass Failure: Moderate to high
Stand Examination: Type None (Walk-thru by logging specialist) Date 08/14/91 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate Damaging Agents: Some pini and pinicola in the unit. Old blowdown scattered throughout the unit
Species Composition (trees 5+" DBH): 80-90 %WH %MH %AC 10-20%SS Stand Structure: Uneven aged stand of hemlock with minor amounts of spruce.  Generally good form. Understory not well stocked, with saps/poles primarily in
<pre>canopy gaps. Ave. Height:</pre>
Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 439 MBF Volume by Species: H MBF AC MBF SS MBF
SUMMARY OF OTHER RESOURCES AND VALUES:
Soils - Ensure south boundary is outside stream buffer. Split yard on v-notches Recommend partial suspension at a minimum to protect hazardous soils. Full suspension would be preferable.  Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut.

Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Spruce will likely be a minor stand component, confined primarily to areas adjacent to the stream and areas where sufficient soil disturbance exposes mineral soil.

Intermediate	Treatments:	No treatments	planned at	this time.	 

Transportation System: Accessed by temporary road. Close, water	erbar a	and grass
seed after use.		
Logging System: Designed for running skyline. Directional fel		
II buffer. Require partial suspension for entire unit due to	high h	azard soils.
Unit Boundary: Provide for windfirm boundary. Incorporate TTR	A buff	er into
boundary layout.	n Dull	er riico
Streamside Management: Class II stream adjacent to unit.		
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al div	ersitv.
Refer to marking quide for instructions for marking.		
Erosion Control: Split yard v-notches. Close, waterbar, and g	rass-s	eed temp.
spur road.		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: Evaluate for thinning 14-16 years afte	r harv	est. Base
needs on results of exam.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on results of exam		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro

Prepared By: William R. Dougan Date: 08 /01 /92

Certified Silviculturist

Date: 08 /01 /92

UNIT # 4261 of the SE Chichagof Timber Sale ACRES 29 Determined How: GIS By Whom: T. Falkner Date: 1991 Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194 Scale: 1:12000 1/4 Quad ID: SITC5NE SITE CHARACTERISTICS: Elevation: 950 to 1450 ft. Aspect: S to SE Slope: 5 to 80 % Landform: Frequently dissected footslopes and alluvial fans. Slope Configuration: Convex to even \_\_\_\_\_ Site Index (Farr): 94 Plant Association: Western hemlock/blueberry/devil's club and sitka spruce/ blueberry/devil's club. Soil: SMU = 5234B, 3002EParent Material: Alluvium/colluvium Soil Depth: (cm) 33-40&150 Soil Texture: Silt loam Potential of Mass Failure: Low to high STAND CHARACTERISTICS: Stand Examination: Type None (Walk-thru by logging specialist) Date 08/14/91 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate Damaging Agents: Some rot, pini, and pinicola present. Old blowdown scattered throughout stand. Species Composition (trees 5+" DBH): 80-90 %WH %MH %AC 10-20%SS Stand Structure: Uneven aged hemlock stand with small amounts of spruce. Generally good form. Understory is understocked, with saps/poles confined to canopy gaps. Ave. Height: \_\_\_\_ft. Basal Area: \_\_\_sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): \_\_\_\_\_ Ground Cover: 30%-35% blueberry; 5%-20% Devil's club; <10% salmonberry. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 1004 MBF Volume by Species: H \_\_\_\_MBF AC \_\_\_MBF SS \_\_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Recommend full suspension in upper third of unit and across v-notches to protect unstable soils. Partial suspension over rest of unit. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, likelihood of blowdown and desire to encourage spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of windthrow on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

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Regeneration T	reatments: C	earcut has	rvest foll	Lowed by r	natural re	generation.	
Hemlock is ant	icipated to m	egenerate	naturally	over mos	st of the	unit. Spru	ice
will likely be							
the stream and	areas where	sufficien	t soil dis	turbance	has expos	ed mineral	soil.
Marking Guide:	Designate a	minimum o	f 2 snags	per acre	to be lef	t for wildl	ife
and structural							

desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the ex-

tent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time.

Transportation System: Accessed by temporary road. Close, and	remove	e temporary
bridge, waterbar, and grass seed after use.		
Logging System: Designed for running skyline. Require direction	onal fe	elling away
from Class II stream buffer. Require partial suspension for		
high hazard soils.		
Unit Boundary: Provide windfirm boundary. Incorporate TTRA bu	ffer i	nto unit
boundary layout.		
Streamside Management: No concerns. Class II stream adjacent	to uni	t.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al div	ersity.
Refer to marking quide for instructions for marking.		
Erosion Control: Directional fell away from Class II stream.	Partia	l suspension
to minimize soil disturbance. Close, waterbar, & seed tempora		
Fuel Treatment: None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: Evaluate for thinning 14-16 years afte	r harv	est. Base
needs on results of exam.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
PCT exam 14-16 years after harvest		RD Silv.
PCT 16-18 years after harvest; base needs on results of exam		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro

Prepared	By:	William R.	Dougan	Date:	08	/01	/92

Certified By: Millam R. Jouque Date: 08 /01 /92

Certified Silviculturist

UNIT # 4270 of the SE Chichagof Timber Sale

STAND # 292,296	VCU <u>246</u>	MANAGEMENT AREA C34
ACRES 12 Determined Ho	w:_GIS	By Whom: <u>T.Falkner</u> Date: <u>1991</u>
	<u>-015</u>	by whome ittained back.
Aerial Photo: Year <u>1987</u>	Flight Line 35	Photo #'s 1684-194
Scale: 1:12000		
1/4 Quad ID: SITC4NW		
SITE CHARACTERISTICS:		
Elevation: 750 to 900 ft.		
Landform: Smooth, infrequent		
Slope Configuration: Convex	amlask/bluakanna	Site Index (Farr): 58
Plant Association: western n	emiock/blueberry a	and mixed conifer/blueberry.
Soil: SMU = 3551D, 6174B		
Parent Material: Colluvium/r	esiduum	
Soil Depth: (cm) 25-40 Sc	il Texture: Silt l	loam to gravelly silt loam.
Potential of Mass Failure: <u>I</u>	ow to moderate	
STAND CHARACTERISTICS:		
Stand Evamination: Type Nor	oe (Walk-thru by lo	ogging specialist) Date 05/26/91
		e major stand development influence
Potential Windthrow Hazard:		, mayor sound dovoropment ringraenes
Damaging Agents:		
Species Composition (trees 5	· —	
	stand of hemlock	with minor amounts of cedar and
spruce.		
Ave. Height:ft.	Basal Area: sq.	.ft. Ave. Age: 150+ vr.
Ave. DBH (trees 5+" DBH):		
Ground Cover: 80% blueberry		
T. 10.		
Total Net Sawlog Vol/Acre:		
Volume by Species: HN	MBF ACMBF	F SSMBF
SUMMARY OF OTHER RESOURCES A	ND VALUES.	
		et soils. Ensure south boundary
of setting 1 is above slope		
Fisheries, Hydrology, Wildli		

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams adjacent to and below unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will likely be minor stand components, with cedar regenerating in wetter areas and spruce in areas where sufficient soil disturbance exposes mineral soil

Intermediate	rreatments:	No treatments	planned at th	iis time.	

Transportation System: Accessed by temporary spur roads off of	Rd.#76	523.
Temporary spur roads will be closed, waterbarred, & grass-seed	ed afte	er harvest.
Logging System: Designed for running skyline. May need artific	ial guy	anchors
due to landing location proximity to muskeg.		
Unit Boundary: Ensure south boundary of setting 1 is above slo	pe brea	ak of
v-notch. Provide windfirm boundary.		
Streamside Management: No concerns. Class III stream adjacent of unit.	to sou	ıth boundary
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur	al dive	ersity.
Refer to marking guide for instructions for marking.	~ 3	
Erosion Control: Directional fell away from Class III stream.		
& seed temp. roads. <u>Maintain drainage (culverts, ditches) on</u> Fuel Treatment: None prescribed.	Ka. /62	23.
rder freatment. None prescribed.		
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually		RD Roads
Check for blowdown timber annually each spring		RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92

Certified By: Millim R. Millim R. Date: 08 /01 /92

Certified Silvidulturist

# UNIT # 4271 of the SE Chichagof Timber Sale

STAND #160,297,299 VCU 246 MANAGEMENT AREA C34

ACRES 42 Determined How: GIS	By Whom: T. Falkner Date: 1991
Aerial Photo: Year 1987 Flight Line 35 Scale: 1:12000 1/4 Quad ID: SITC5NE	Photo #'s 1684-194
SITE CHARACTERISTICS:	
Elevation: 900 to 1350 ft. Aspect: N to Landform: Smooth, infrequently dissected mountains Slope Configuration: Convex Plant Association: Western hemlock/blueberry	lopes.
Soil: SMU = 3562D, 3551D	
Parent Material: Colluvium, residuum	
Soil Depth: (cm) 40 & 150 Soil Texture: Loam to si Potential of Mass Failure: Low	It loam.
Fotential of Mass Fallure: Low	
STAND CHARACTERISTICS:	
Stand Examination: Type None (Walk-thru by loggi Stand History: Wind processes appear to be the maj Potential Windthrow Hazard: Moderate Damaging Agents:	
Species Composition (trees 5+" DBH):%WH	27 27 PAS HWS
Stand Structure: <u>Uneven aged stand of hemlock</u> .	
Ave. Height:ft. Basal Area:sq.ft.  Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover:80% blueberry.	5 5+" DBH):
Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees	5 5+" DBH):
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover: 80% blueberry  Total Net Sawlog Vol/Acre: MBF Total Ur	s 5+" DBH):
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover: 80% blueberry.	s 5+" DBH):
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover: 80% blueberry  Total Net Sawlog Vol/Acre: MBF Total Ur	s 5+" DBH):
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover:80% blueberry.  Total Net Sawlog Vol/Acre:MBF Total Unvolume by Species: HMBF ACMBF  SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Split yard on v-notches. Recommend at least	nit Vol: 1135 MBF SSMBF ast partial suspension on wet
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover:80% blueberry.  Total Net Sawlog Vol/Acre:MBF	nit Vol: 1135 MBF SSMBF ast partial suspension on wet
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover:80% blueberry.  Total Net Sawlog Vol/Acre:MBF Total Unvolume by Species: HMBF ACMBF  SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Split yard on v-notches. Recommend at least	nit Vol: 1135 MBF SSMBF ast partial suspension on wet
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover:80% blueberry.  Total Net Sawlog Vol/Acre:MBF	nit Vol: 1135 MBF SSMBF ast partial suspension on wet
Ave. DBH (trees 5+" DBH):in. Ave. TPA (trees Ground Cover:80% blueberry.  Total Net Sawlog Vol/Acre:MBF	nit Vol: 1135 MBF SSMBF ast partial suspension on wet

Forest Plan: VCU 246 has been allocated through the Tongass Land Management Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will likely be minor stand components, with cedar regenerating in the wetter areas and spruce regenerating where sufficient soil disturbance exposes mineral soil.

Marking Guide: Designate a minimum of 2 snags per acre to be left for wildlife and structural diversity. Species preference is spruce/cedar; hemlock is least desirable for snag retention. Clump/group snags along unit boundary to maximize retention during yarding. If inadequate snags exist, mark green trees for retention to serve as recruitment trees for snags. Utilize live cull to the extent possible. Avoid marking mistletoed hemlock for retention.

Intermediate Treatments: No treatments planned at this time

		NO CICACMCITES	praca ac	01120 0211101	
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	<del></del>				

Transportation System: Accessed by Rd.#7623 and temporary spur Temporary spur road will be closed, waterbarred, and grass-see		
Logging System: Designed for running skyline. Require directi from and split yard v-notches.	onal f	elling away
Trom and Spire yard v notenes.		
Unit Boundary: Provide windfirm boundary. Incorporate TTRA bu boundary layout. Streamside Management: No concerns. Class II stream adjacent		
· · · · · · · · · · · · · · · · · · ·		
Wildlife Management: See Reserve Trees.		····
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Directional fell away from and split yard v-n		
waterbar, & seed temp. road. Maintain drainage (culverts, dit Fuel Treatment: None prescribed.	ches)	on Rd. 7623.
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest	KV	RD Silv.
Certification of natural regeneration 4-6 years after harvest Check road drainage structures annually	KV	RD Silv.
Check for blowdown timber annually each spring		RD Silv.
Monitor TTRA buffer for windfirmness, effectiveness		Fish/Hydro
Prepared By: William R. Dougan Date: 08	/01 /	92

Cartified By

Certified Silviculturist

Date: 08 /01 /92

UNIT # 4280 of the <u>SE Chichagof</u> Timber Sale STAND #159,300,305 VCU 246 MANAGEMENT AREA C34 By Whom: T. Falkner Date: 1991 ACRES 33 Determined How: GIS Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194 Scale: 1:12000 1/4 Quad ID: SITC4NW SITE CHARACTERISTICS: Elevation: 820 to 1450 ft. Aspect: S to SE Slope: 55 to 80 % Landform: Smooth, infrequently dissected mountainslopes. Slope Configuration: Convex Site Index (Farr): 74 Plant Association: Western hemlock/blueberry and mixed conifer/blueberry. Soil: SMU = 3562D, 3002E Parent Material: Colluvium/residuum Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/loam/sandy loam Potential of Mass Failure: Moderate to high STAND CHARACTERISTICS: Stand Examination: Type None (Walk-thru by logging specialist) Date 08/14/91 Stand History: Wind/slide processes appear to be the major stand processes Potential Windthrow Hazard: Moderate Damaging Agents: Fairly high decay, moderate defect with pini and pinicola common in most areas. High incidence of rot /decay in areas. High amount of cull in higher elevations. Old blowdown in some areas. Species Composition (trees 5+" DBH): 40 %WH 20 %MH 35-40 %AC 0-5 %SS Stand Structure: Pockets of poles (10"-12" DBH). Generally larger DBH trees with smaller diameter trees at higher elevations. Uneven aged mixed conifer stand. Ave. Height: \_\_\_\_\_ft. Basal Area: \_\_\_\_sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 40%-80% blueberry. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: MBF Volume by Species: H MBF AC MBF SS MBF SUMMARY OF OTHER RESOURCES AND VALUES: Recommend full suspension in setting 1 due to hazardous soils. Split yard on v-notches. Recommend at least partial suspension in setting 6 and on wet soils along lower boundary. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams within unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. General decadence of stand and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

Intermediate	Treatments: No treatments	s planned at this time.	

Transportation System: Accessed by a temporary road. Close, wat seed after use.	erbar	and grass
Logging System: Designed for running skyline. Require direction from and split yard v-notches. Require partial suspension for due to high hazard soils; full suspension over v-notches that cyarded.	settir	ngs 1,2,6
Unit Boundary: Provide windfirm boundary.		
Streamside Management: No concerns. Class II stream located be	elow ur	nit.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structural Refer to marking guide for instructions for marking.  Erosion Control: Directional fell away from and split yard v-now waterbar, and grass-seed temporary spur roads. Maintain drainal Fuel Treatment: None prescribed.	otches.	. Close,
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest Certification of natural regeneration 4-6 years after harvest	KV	RD Silv.
Check road drainage structures annually Check for blowdown timber annually each spring		RD Roads RD Silv.
Prepared By: <u>William R. Dougan</u> Date: <u>08</u>	/01 /9	92
Certified By: William R. Dougen Date: 08	/01 /9	92_

UNIT # 4290 of the SE Chichagof Timber Sale ACRES 35 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-194 Scale: 1:12000 1/4 Quad ID: SITC4NW SITE CHARACTERISTICS: Elevation: 700 to 1300 ft. Aspect: E Slope: 10 to 75 % Landform: Smooth, frequently dissected mountainslopes. Slope Configuration: Convex Site Index (Farr): 50 Plant Association: Mountain hemlock/blueberry and mixed conifer/blueberry Soil: SMU = 3238D, 3274B Parent Material: Colluvium/residuum Soil Depth: (cm) 40 & 150 Soil Texture: Silt loam/gravelly silt loam Potential of Mass Failure: Moderate to high STAND CHARACTERISTICS: Stand Examination: Type None Date / / Stand History: Wind/slide processes are likely the major stand processes Potential Windthrow Hazard: Moderate Damaging Agents:\_\_\_ Species Composition (trees 5+" DBH): %WH %MH %AC %SS Stand Structure: <u>Uneven aged mixed conifer stand</u>. Ave. Height: ft. Basal Area: sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): in. Ave. TPA (trees 5+" DBH): Ground Cover: 60%-80% blueberry Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 943 MBF Volume by Species: H \_\_\_\_MBF AC \_\_\_MBF SS \_\_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES: Recommend partial suspension at a minimum because of hazardous soils. Ensure north boundary is above slope break of deep v-notch. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect stream adjacent to unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information and desire to encourage spruce/cedar regeneration preclude partial cut. Clearcut with reserve trees will provide for establishment of shade intolerant trees (refer to Item 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

Incermediace	Trearments.	NO creatments	pranned at	cuis cime.	
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Transportation system: 70+ 100t bridge to access this u			
roads needed to access landings. Temporary spur roads	will be	closed	, water-
barred and grass-seeded after harvest.			
Logging System: Designed for running skyline and slackli			
felling away from and split yard v-notches. Require pa	rtial su	spensi	on for
entire unit (high hazard soils). May need artificial q	uv ancho	rs for	landing at
setting 3.			
	1 6 1		
Unit Boundary: Ensure north boundary is above slope bre	ak or de	ep v-n	oten.
Layout boundary for windfirmness.			
Streamside Management: No concerns. Class III stream a	djacent	to uni	t on north.
Wildlife Management: See Reserve Trees.			
Reserve Trees: 2 snags per acre left for wildlife and s	tructura	l dive	rsity.
Refer to marking quide for instructions for marking.			
	hog De		au anonai an
Erosion Control: Directional fell and split yard v-note		rtial	suspension
for entire unit. Close, waterbar, and seed temp. spur.	roads.		
Fuel Treatment: None prescribed.			
Planting: None prescribed.			
Animal Damage Controls None proggrihed	-		
Animal Damage Control: None prescribed.			
Vegetation Management: None prescribed nor anticipated.			
Precommercial Thinning: None prescribed nor anticipated	•		
Companie 1 mbinaine News and a subject to the day			
Commercial Thinning: None prescribed nor anticipated.			
Final Harvest: Evaluate for harvest 95-100 years after	harvest.		
MONITORING PLAN:			
Activity and Date		Fund	Who
Natural regeneration exam 4-5 years after harvest		KV	RD Silv.
Certification of natural regeneration 4-6 years after h	arvest	KV	RD Silv.
Check for blowdown timber annually each spring			RD Silv.
Prepared By: William R. Dougan D	ate: <u>08</u>	/01 /9	12
rrepared by. Writtam K. Dougan	ace. <u>00</u>	/ 0 1 / 3	
10 - 1 M. M. (1)			
	ate: <u>08</u>	/01 /9	2
Certified Silviculturist			

UNIT # 4300 of the <u>SE Chichagof</u> Timber Sale

STAND #244,284,290, VCU 246 MANAGEMENT AREA C34

291,294 ACRES 82 Determined How: GIS By Whom: T.Falkner Date: 1991 Aerial Photo: Year 1987 Flight Line 35 Photo #'s 1684-196 Scale: 1:12000 1/4 Quad ID: SITC4NW SITE CHARACTERISTICS: Elevation: 550 to 1300 ft. Aspect: SE Slope: 10 to 70 % Landform: Smooth, infrequently dissected mtslopes/frequently dissected ftslopes. Slope Configuration: Convex to even Site Index (Farr): 64 Plant Association: Western hemlock/blueberry Soil: SMU = 3551D, 5261B Parent Material: Colluvium/residuum/ablation till Soil Depth: (cm) 25-40&150 Soil Texture: Silt / gravelly loam. Potential of Mass Failure: Low STAND CHARACTERISTICS: Stand Examination: Type None (Walk-thru by logging specialist) Date 07/19/91 Stand History: Wind processes appear to be the major stand development influence Potential Windthrow Hazard: Moderate Damaging Agents: Moderate defect and decay with some pini and pinicola. Frost cracks and broken tops are common in areas. Pistol butts common on steeper slopes. High weather injuries and old blowdown present in some areas. Species Composition (trees 5+" DBH): 30-50 %WH 20-40 %MH 20-40 %AC 5-10 %SS Stand Structure: Generally 18"-24" DBH trees with scattered larger diameter trees. Some patches of poles. Generally not a brushy area. Uneven aged stand of hemlock/cedar with minor amounts of spruce. Ave. Height: \_\_\_\_ft. Basal Area: \_\_\_sq.ft. Ave. Age: 150+ yr. Ave. DBH (trees 5+" DBH): 18-24in. Ave. TPA (trees 5+" DBH):\_\_\_\_\_ Ground Cover: 80% blueberry; 5%-15% rusty menziesia. Total Net Sawlog Vol/Acre: MBF Total Unit Vol: 2254 MBF Volume by Species: H \_\_\_\_MBF AC \_\_ \_\_\_MBF SS \_\_\_\_MBF SUMMARY OF OTHER RESOURCES AND VALUES: Soils - Split yard on v-notches. Area of hazardous soils near backline at intersection of settings 6 and 8; Recommend adjusting backline around it. Recommend partial suspension over wet soils along lower boundary. Fisheries, Hydrology, Wildlife - No concerns.

Forest Plan: VCU 246 has been allocated through the Tongass Land Management
Plan to Land Use Designation (LUD) 4. Opportunities will be provided for intensive resource development where emphasis is primarily on commodity or market resources, while providing for protection of physical and biological productivity.

Unit Objectives: Provide volume to APC long term sale. Regenerate stand resulting in a vigorous new stand which will yield sawlog size and quality products in the next rotation. Provide for structural diversity through retention of snags and large down woody material. Protect soil resource. Protect streams within unit.

Alternatives Considered: Regeneration harvests considered are clearcut with reserve trees and partial cut. Lack of detailed stand information, general decadence of stand and desire to encourage cedar/spruce regeneration preclude partial cut. Clearcut with reserve trees will minimize adverse impacts of disease on forest health and will provide for establishment of shade intolerant trees (refer to Items 4 and 5, Attachment 2, of Chief's letter to Regional Foresters and Station Directors dated June 4, 1992).

#### MANAGEMENT PRESCRIPTION:

Regeneration Treatments: Clearcut harvest followed by natural regeneration.

Hemlock is anticipated to regenerate naturally over most of the unit. Cedar and spruce will be minor components, with cedar regenerating on wetter areas and spruce regenerating near streams and where sufficient soil disturbance exposes mineral soil.

Intermediate	Treatments: N	o treatments	planned at	this time	•	
					<del></del>	

spur road. Spur road will be closed, waterbarred, & grass-see		
Logging System: Designed for running skyline. Require direction v-notches. May need artificial anchors for landings in settimore proximity to muskeg.		
Unit Boundary: Layout boundary for windfirmness.		
Streamside Management: No concerns. Class II stream located be	elow ur	nit.
Wildlife Management: See Reserve Trees.		
Reserve Trees: 2 snags per acre left for wildlife and structur Refer to marking quide for instructions for marking.  Erosion Control: Directional fell and split yard v-notches. C & seed temp. road. Maintain drainage (culverts, ditches) on R Fuel Treatment: None prescribed.	lose, v	waterbar,
Planting: None prescribed.		
Animal Damage Control: None prescribed.		
Vegetation Management: None prescribed nor anticipated.		
Precommercial Thinning: None prescribed nor anticipated.		
Commercial Thinning: None prescribed nor anticipated.		
Final Harvest: Evaluate for harvest 95-100 years after harvest	•	
MONITORING PLAN:		
Activity and Date	Fund	Who
Natural regeneration exam 4-5 years after harvest  Certification of natural regeneration 4-6 years after harvest  Check road drainage structures annually  Check for blowdown timber annually each spring	KV KV	RD Silv. RD Silv. RD Roads RD Silv.
Prepared By: William R. Dougan Date: 08	/01 /9	92_
Certified By: Millian R. Osufun Date: 08  Certified Silviculturist	/01 /9	92_





